UNIVERSITY OF MINNESOTA
RECEIVED
MAR
15
1948
LIBRARY
Mar15'48

Virginia MEDICAL MONTHLY

OFFICIAL PUBLICATION OF THE MEDICAL SOCIETY OF VIRGINIA

CONTENTS

Guest Editorial. K. D. Graves, M.D. ---------- 107

The Virginia Hospital Survey and Construction Program Under the Hill-Burton Act. L. J. Roper, M.D., Richmond, Virginia ---------- 108

The Selection of Cases and the Surgical Treatment of Hypertension. C. C. Coleman, M.D., J. M. Meredith, M.D., and C. E. Troland, M.D., Richmond, Virginia ---------- 110

Traumatic Appendicitis. Stanley H. Macht, M.D., Baltimore, Maryland ---------- 122

Roentgen Manifestations of Intra-Abdominal Abscess. Samuel Richman, M.D., Richmond, Virginia ---------- 124

The Treatment of Laryngeal Tuberculosis with Streptomycin. Francis H. McGovern, M.D., and L. R. Broome, M.D., Danville, Virginia ---------- 129

Treatment of Rheumatoid Arthritis. M. Morris Pinckney, M.D., Richmond, Virginia ---------- 131

Treatment of Migraine. J. Warrick Thomas, M.D., Richmond, Virginia ---------- 134

Cirrhosis of the Liver—Some Comments Upon the Clinical Diagnosis and Medical Management. Lloyd L. Thompson, Jr., M.D., Richmond, Virginia ---------- 137

Continued on page 6.

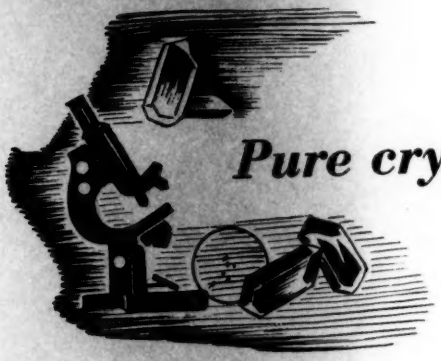
March, 1948

XUM

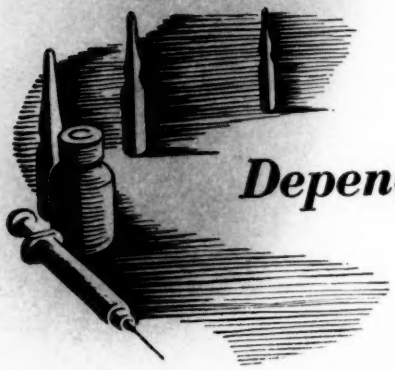
THEELIN:

continuing

Naturally occurring



Pure crystalline



Dependable estrogen

XUM

Virginia Medical Monthly

Vol. 75, No. 3
WHOLE No. 1149

RICHMOND, VA., MARCH, 1948

25 CENTS A COPY
$2.00 A YEAR

GUEST EDITORIAL

The Premature Infant—Baby or Foetus?

TAKING a birth weight of 2500 grams (5½ pounds) as the line of demarcation between a mature and a premature infant, the death rate of the latter is very high. Brennemann gives the average as being 44.12 per cent in a series covering a period from 1922 to 1940. This rate is inversely proportional to the fetal weight, ranging from 87.05 per cent when the weight is less than 1000 grams to 11.04 per cent when it falls between 2001 and 2500 grams.

Davison lists the following causes of prematurity: toxemia and nephritis 17 per cent; multiple pregnancies 16 per cent; hemorrhage 8 per cent; trauma 6 per cent; placenta previa 5 per cent; syphilis 4 per cent; puncture of membranes 3 per cent; infectious diseases 2 per cent; tuberculosis 2 per cent; hydramnion 1 per cent; and lists the following 36 per cent without subdivision: analgesics, anesthetics, oxytocics, pneumonia, pelvic and uterine deformities, maternal age over 40, breech presentations, overwork, undernourishment, weakness, heart disease and unknown.

Could this high death rate be influenced to a certain degree by the fact that we are prone to regard these subjects as babies rather than foeti? The skin is almost as thin as tissue paper; the subcutaneous adipose tissue is practically absent; the cartilage of the chest framework is like thin cardboard and the ribs are not much harder; the digestive juices are very weak or absent. The gastrocardiac sphincter is defective, often causing to regurgitation with not only loss of nourishment and fluids but also predisposing to insufflation. The muscles of deglutition function poorly and swallowing is often not accomplished.

With no intentional disrespect to the genus *homo sapiens*, let us think of the premature infant as being comparable to a tadpole rather than a young frog. If we wanted a tadpole to thrive or even survive we would treat it as a tadpole and not try to force it to assume the role of a frog until developmental factors made this practicable.

With this thought in mind, would it be feasible more nearly to simulate intrauterine conditions for the premature infant? As there is practically no subcutaneous fat, the thermo-regulatory system of the body is defective. Drying of the skin by evaporation could be avoided by moist compresses or immersion of the trunk and extremities in a water bath with accurate thermo-regulation, rather than the incubator as is now in use. A little water or dilute breast milk could be given by mouth but most of the fluids and nourishment with necessary vitamins and chemicals might be given either intravenously using such portals of entry as an arm vein, scalp or leg vein. Nourishment could also be given by sternal puncture, hypodermoclysis or intraperitoneally. Plasma blood or hydrolysates, possibly with dextrose solutions, might be used. As the respiratory muscles are too weak to provide proper ventilation, a respirator might be used such as a carefully adjusted iron lung. Any such treatment would probably have to be administered in centers established for this purpose and would no doubt be impractical for the general hospital.

These observations are not in any way to be considered a reflection on the obstetrician and the pediatrician, who are doing a splendid work; but rather as a challenge to the imagination of research workers to chart a course and work out a program leading to a reduction in the mortality rate of the premature infant.

K. D. GRAVES, M.D.

XUM

THE VIRGINIA HOSPITAL SURVEY AND CONSTRUCTION PROGRAM UNDER THE HILL-BURTON ACT

L. J. ROPER, M.D.
State Health Commissioner,
Richmond, Virginia.

Under provisions of the Hill-Burton Act, Virginia receives $2,209,800 annually for five years in grant-in-aid funds from the federal government for the construction of hospital facilities within the state. Federal funds are available to non-profit associations or public agencies on a one dollar for two dollars matching basis. Participation in the construction and equipment of general, mental, tuberculosis, and chronic disease hospitals and public health centers is permitted. Construction may be a new building, an addition, or remodeling or alteration of an old facility.

The development of the Virginia Hospital Survey and Construction Program under the Hill-Burton Act was authorized by the General Assembly during the special session held in 1947. This legislation designated the State Department of Health as the official agency to administer the program and authorized the creation of the Division of Hospital Survey and Construction within the Department to handle the details of administration. In addition, the state law provided for the appointment of an Advisory Hospital Council to advise and counsel with the State Health Commissioner on problems pertaining to the hospital survey and construction program.

THE SURVEY PHASE

An extensive survey of the existent hospital facilities in Virginia was undertaken during the early months of 1947. This survey was made to determine the number of additional facilities needed in the various types of hospital categories to bring the state up to the standards prescribed in the Hill-Burton Act. According to these standards Virginia should have 4.5 general hospital beds, 5.0 mental beds, and 2.0 chronic disease hospital beds per 1000 population, and one public health center for each 30,000 population. The number of tuberculosis beds should equal 2½ times the average annual deaths from tuberculosis during 1940-1944.

Table A shows the number of beds needed in each type of hospital category, the number of existing acceptable beds and the number of beds programed for construction as determined by the survey.

TABLE A

Type of Hospital	Number of Needed Beds	Number of Acceptable Beds	Number Beds to be constructed
General	12745	6870	5875
Mental	14050	3848	10202
Tuberculosis	3787	920	2817
Chronic	5620	——*	5620

*There are no chronic disease hospitals operating in Virginia at the present time.

In developing a plan for the construction of general hospital facilities, hospital service areas were established throughout the state. These hospital service areas are of three types: base, intermediate, and rural. A base area contains 100,000 or more population and at least one general hospital of 200 or more beds. An intermediate area has 25,000 or more residents and one or more general hospitals of 100 or more beds. The rural areas contain all geographical territory of the state not included in base or intermediate areas.

In setting up the hospital service areas, economic trade areas were used as the basic determinants of the geographical area to be encompassed. Hospital experience and the results of the hospital survey indicate that the geographical territory covered by a general hospital facility is practically the same as the territory served by the economic and social agencies in the area. From the trade areas of Virginia 4 base, 15 intermediate, and 26 rural hospital service areas were established. Roughly, these areas may be grouped into six regions centering around Norfolk, Richmond, Northern Virginia, Charlottesville, Roanoke and Danville.

The Virginia Hospital Plan has been approved by the Advisory Hospital Council and by the United States Public Health Service on December 26, 1947. Applications for participation in the program are now being received from the local communities.

THE CONSTRUCTION PHASE

To be eligible for participation in the grant-in-aid program, a project applicant, in addition to being a non-profit association or public agency, must be eligible for assistance under the priority system established in the State Plan. The construction, for which application for assistance is made, must be programed within the State Plan. The project applicant also must meet various financial requirements and certain construction regulations.

One of the fundamental concepts of the Hill-Burton program is providing assistance to those areas having the greatest need for hospital facilities. This is necessary since the monies available through federal aid together with the local matching funds will build only a portion of the needed facilities. To give the areas in Virginia having greatest need for hospital facilities first chance at federal aid a system of priorities for general hospitals was developed through a statistical combination of two criteria: (1) per cent of unmet hospital needs; and (2) per cent of occupancy of existing facilities. Generally speaking, an area with a high per cent of unmet needs and a high per cent of occupancy received a high priority. An area with a low per cent of unmet needs and low per cent of occupancy was given a low priority.

For purposes of classification, four priority groups were established: A, B, C, and D. Table B shows the priority identification of the general hospital service areas. The name of the area is that of the hospital center of the area and does not contain the names of all localities in the hospital service area in which general hospital facilities are programed for construction in the State Plan.

TABLE B

PRIORITY CLASSIFICATION

A	B	C	D
South Hill	Farmville	Staunton	Norton
Suffolk	Pearisburg	Winchester	Martinsville
Culpeper	Alexandria	Norfolk	Lynchburg
South Boston	Abingdon	Leesburg	Pulaski
West Point	Fredericksburg	Williamsburg	Wytheville
Lexington	Roanoke	Harrisonburg	Marion
Rocky Mount	Danville	Charlottesville	Clifton Forge
Petersburg	Nassawadox	Franklin	Newport News
Warsaw	Lebanon		Galax
	Richmond		
	Radford		
	Richlands		
	Woodstock		

In addition, six areas were placed in an "Unassigned" category pending further study and investigation of the hospital situation in those areas.

The priority system gives certain hospital service areas first chance at the grant-in-aid funds. It does not mean, however, that unless used by the high priority areas, the aid funds will be returned to the federal government. All beds programed for construction in Virginia are needed. If those areas of greatest need do not apply for funds then those with the next highest priorities will be eligible for assistance.

In administering the hospital survey and construction program, the State Department of Health assumes certain definite responsibilities. It must certify to the Surgeon General of the Public Health Service that all requirements have been met. This will involve frequent and periodic inspection of each project in cooperation with the local sponsors. The Health Department will also consult and advise with the local areas concerning the various problems which may arise. Experience has indicated that these problems will range from those of organizing an area to build a hospital to final review of plans and specifications for the building. Emphasis will be equally divided between consultation and advice, and inspection and certification. To keep the State Plan current, periodic revisions will have to be made by the Department.

All facilities built with Hill-Burton grant-in-aid funds must be subject to rules and regulations as determined by the state. In Virginia, all hospitals are now licensed under an act of the General Assembly. Hill-Burton construction will be subject only to the licensing regulations imposed on all hospitals. No control will be exercised over the administration of the hospital or its medical staff.

Basically, the Hill-Burton program is a hospital planning program. As developed in Virginia the Hospital Plan has considered the hospital needs of the population of the Commonwealth during the next 15-20 years. Assistance in the form of federal grants-in-aid combined with local funds will build only part of the hospital facilities needed during this period. With wise planning, however, much can be accomplished to provide better hospital facilities in areas where they will be most needed. The Department of Health recognizes the great responsibility placed upon it as administrator of the program. It stands ready to help local areas in every way possible to provide better hospital facilities for their residents.

XUM

THE SELECTION OF CASES AND THE SURGICAL TREATMENT OF HYPERTENSION*

C. C. COLEMAN, M.D.,
J. M. MEREDITH, M. D.,
AND
C. E. TROLAND, M.D.,
Richmond, Virginia.

1. *Historical:* In a recent review by Voris[1], the development of sympathectomy for relief of hypertension is well summarized. It began in 1930 when Adson did a bilateral anterior rhizotomy of the 6th thoracic to the 2nd lumbar roots, inclusive; later he employed lumbar sympathectomy and celiac gangliectomy, with partial resection of both adrenal glands, by an infradiaphragmatic approach. Craig first performed a subdiaphragmatic splanchnicectomy in 1932. Peet, in 1933, began his series of over 1500 cases of bilateral splanchnicectomy and lower dorsal sympathectomy in a one-stage procedure through a supradiaphragmatic approach. Crile advocated celiac ganglionectomy. Smithwick, in 1939, developed the procedure now in use in most clinics: bilateral dorsolumbar sympathectomy and splanchnicectomy with the removal of the 11th and 12th ribs, permitting palpation and biopsy of the kidney, inspection and palpation of the adrenal (question of tumor), and removal of the sympathetic chain bilaterally from below T_8 to below L_2, and the splanchnic nerves and all or part of the celiac plexus, performed in two stages. This is now the procedure of choice in our clinic. It is essentially an ingenious combination of the procedures first employed by Adson and by Peet and is, therefore, both supra and infra-diaphragmatic in approach. Finally, Grimson, believing that the value of sympathectomy is directly related to the extensiveness of the procedure, operates transpleurally through the 3rd and 10th ribs, which permits the resection of the entire thoracic sympathetic chain and at times the upper two lumbar ganglia; this is, by far, the most complete of all, being even total sympathectomy in some cases. Smithwick's procedure has lately been modified in some clinics by removing the 7th or 8th rib and the 11th rib, instead of the 11th and 12th, thus permitting retropleural removal of the thoracic chain up to T_3 ganglion.

*From the Department of Neurological Surgery, Medical College of Virginia, Richmond, Virginia.

2. *Etiology and Diagnosis:* The widest difference of opinion still prevails as to the etiology of hypertension. Doubtless there are diverse factors in different individuals. White and Smithwick[2] list five causes: renal, cerebral, cardiovascular, endocrine, and unknown. Certainly, conversely, the mechanism by which the blood pressure is lowered in man by sympathectomy is not completely understood. Occasionally, unilateral renal disease may be the cause of hypertension; removal of the diseased kidney may cure the hypertension in such cases. A medullary or cortical adrenal tumor can cause hypertension; its removal is also followed by cure of the hypertension without operation on the sympathetic nervous system. Usually a tumor of the adrenal medulla causes a typical "spiking" type of hypertension, similar in appearance—when charted daily—to a septic temperature chart, although sustained "plateau" hypertension due to adrenal tumor is possible, as in the interesting case reported by Smithwick. Both cortical and medullary adrenal tumors are associated with hypertension and the adrenal should be carefully palpated on each side at the time of operation; all "failures" post-operatively should be thoroughly restudied for the possibility of a previously undetected adrenal tumor.

Coarctation of the aorta is another lesion which can cause hypertension and often requires operation by the thoracic surgeon. This usually occurs in young adult or adolescent *males* and, in such patients, the blood pressure should always be taken in both arms and thighs during the pre-operative study of the patient. The chest film frequently, but not always, shows a striking notching (absent in children) of the under-surface of the ribs bilaterally, as in one of our recent cases (Figure 1). We have seen three such patients in the last three months, all in adult males (aged 21 to 37). Two had rather marked under-development of the legs and, in a certain light, pulsation of the superficial upper trunk

vessels—which are always dilated—can be seen. In one of our patients, a white man of 21, the blood pressure was 210/140 and no pulsation could be felt in the femoral or dorsalis pedis arteries. In the second case, a white man of 26, the blood pressure was 230/110 and he had had known hypertension for seven years. In the third case (aged 37), hypertension had been present for ten years. The blood pressure was 200/110. Oscillometric readings of the legs were much reduced compared to the arms.

Figure 1: Chest film in patient with coarctation of aorta. The under surface of several ribs, especially on the right side, show characteristic notching (arrows) due to enlargement of the intercostal arteries.

In a recent symposium on coarctation of the aorta (5 papers) in which the diagnostic, experimental surgical and surgical data are presented by staff members of the Mayo Clinic, Hines and Christenson[3] summarize the diagnostic syndrome: suspect this condition in all cases of hypertension and always palpate the abdominal aorta and femoral arteries. If these palpations are not entirely normal, look for other evidences of coarctation of the aorta, such as signs of collateral arterial circulation, systolic cardiac mumurs, thrills and bruits over the upper part of the back, and X-ray evidence (chest) of coarctation. Even so, some cases have normal blood pressure in the upper extremities and good pulsations in the femoral arteries. It is also suggested that angiocardiography (contrast medium not named) be used to demonstrate the exact location and degree of coarctation. In some cases, the constricted segment of the aorta can be seen in the left anterior oblique X-ray view of the chest. Clagett reports in some detail the first surgical case operated on at the Mayo Clinic (August 6, 1946), after extensive surgery on dogs, with a quite satisfactory result. This was in a 34-year-old white man with a blood pressure of 230/140 in the right arm and unobtainable in the legs. The coarctation was ligated in situ and the left subclavian artery was also ligated and divided; then he rotated the proximal end of the subclavian to the distal end of the aorta, carrying out an end-to-end anastomosis. It was the first time that the left subclavian had been sucessfully utilized in man for operative repair of coarctation. Thirty-one days after operation, the patient was discharged with a blood pressure of 154/82 in the right arm and normal pulsations in the posterior tibial arteries. Blackford's statistics of 323 cases of coarctation are quoted to show conclusively that most of these patients die at a relatively early age if not operated upon. It is conceivable that in the lesser degrees of aortic coarctation, the Smithwick operation might still be the surgeon's first choice, as dilatation of the vessels in the visceral bed and legs always results following sympathectomy, and it is certainly a much less hazardous procedure than resection of the constricted portion of the aorta and end-to-end suture of the widened aorta or to the subclavian. If the Smithwick operation fails to reduce the blood pressure in such cases and to eliminate disabling symptoms and signs accompanying it, then the aortic operation would appear warranted.

Vascular hypertension and brain tumor are rarely associated. When a brain tumor occurs in a patient with hypertension, the latter is probably entirely coincidental. The average patient with brain tumor, provided an acute ventricular block is not present, usually has a normal blood pressure and is frequently a mild hypotensive. This is especially true of patients with pituitary tumor. However, it cannot be denied that an occasional patient in the early malignant phase of hypertension rather closely simulates a patient with a cerebral tumor: headache, choked disc, diplopia, possibly hemiparesis, convulsions, or aphasia, high spinal fluid pressure, etc.—

so that the only method of clearly distinguishing one from the other is by ventriculography. Such occurrences are admittedly rare but their possibility has been emphasized by Dandy, who reported two cases of operable dural endotheliomas in patients with hypertension, in which, at first, operation was not done, as the blood pressure in each case was 250 mm. systolic and all the symptoms were thought to be due to hypertension. Dandy[4] stated that vascular hypertension is another source of increased intracranial pressure and of incorrect diagnosis (in detecting brain tumors). Papilledema is frequently associated with it and may be indistinguishable by expert ophthalmoscopic examination from choked disc due to tumor. The papilledema is usually bilateral and essentially equal on both sides. There may or may not be neurologic localizing signs and symptoms in addition to those of increased intracranial pressure. A high blood pressure (175 mm. systolic and above) always places the burden of proof upon a diagnosis of tumor, but it is by no means an absolute criterion. If the patient has a beginning or frank malignant hypertension, except for evidence of renal damage (urinalysis, Mosenthal test, intravenous pyelogram and nonprotein nitrogen being practically normal), then particularly, the surgeon should seriously consider a possible brain tumor or adrenal tumor in the preliminary examination of the patient and more emphasis than usual should be placed in eliminating these conditions pre-operatively.

Goldblatt's experiments (1932) produced hypertension by renal ischemia, but hypertension has been produced in animals by a number of methods which do not involve mechanical constriction of renal arteries or parenchyma. Acute vascular hypertension may be produced by injecting fluid under pressure into the cisterna magna, probably related to anemia of the autonomic centers. Acute anemia of the cerebral circulation will provoke intense vascular hypertension in the dog (White and Smithwick). Undoubtedly, in the female, pregnancy is an etiological factor, either with or without toxemia, as often such patients definitely date the onset of hypertension during a pregnancy. In the negro, primary renal disease (glomerulonephritis) appears to be a factor in many patients. Negroes seem to develop essential hypertension amenable to sympathectomy much less often than the white race; frequently they have so severe renal disease, or apparently a "fixed" type of hypertension, that operation is scarcely indicated or warranted.

According to Castleman and Smithwick[5], almost all hypertensive patients show some degree of renal arteriosclerosis. They reported 100 cases of renal biopsy obtained in hypertensive patients during sympathectomy whose average blood pressure was 210/130 and whose average duration of hypertension at the time of operation was six years. They concluded that in over 50% renal vascular disease was inadequate as an explanation of the hypertension; they believed that in many patients the hypertension antedated the renal vascular lesion. These observations are not in keeping with the concept that renal ischemia (Goldblatt) due to pre-existing renal vascular disease is the usual cause of essential hypertension in man. These writers found eight adrenal tumors (in seven cases) in their 100 patients (six cortical and two medullary).

Goldblatt[6] found that when the main artery of only one kidney was constricted in dogs, hypertension developed. This method was devised to simulate arteriosclerosis and reduction of the blood supply to the kidney in man, as it is very difficult, if not impossible, to produce arteriosclerosis itself in the experimental animal. The elevated blood pressure returned to normal in six weeks or less in most dogs after these experiments. In rats, goats and sheep, the blood pressure remained elevated for many months, when only one main artery was constricted. Goldblatt[6] used a silver clamp permanently to constrict the main renal artery to any degree desired. Extensive sympathectomy in the Goldblatt dog will not reduce the hypertension.

3. *Selection of Cases:* The methods of selecting the individual patient for operation vary widely in different clinics. Most clinics prefer to confine the procedure to cases under 55 years of age, to those patients whose systolic blood pressure has reached 200 or more on at least one or two occasions, and who have adequate renal and cardiac function, together with a demonstration of a rather labile blood pressure in response to the amytal test (see below). There are "pre-hypertensive" individuals, however, who probably should be operated on; such cases have beginning elevation of blood pressure (150 to 160 systolic), with a family history containing two or more individuals who have died at a relatively early age of hypertension, with or without apoplexy. Such a patient's response to the "cold pressor test"

XUM

(see below) shows him to be, in all probability, a likely candidate for a "full-blown" hypertension in a few years. deTakats[7] *et al* recently stated that all patients with a persistent pressure in excess of 140/90, taken during daytime activity and not at rest, who are between the ages of 18 and 25, should be considered candidates for the operation. We feel that this method of selection is too radical. On the other hand, Isberg and Peet[8] have stated that any hypertensive patient under 60 years, who is not in congestive failure, whose nonprotein nitrogen is less than 40 mg. per cent, and who has had no major cerebral accident during the previous month, may be considered a reasonable operative risk. This we believe to be somewhat too inclusive. The ideal cases are somewhere between these two statements. In the last analysis, then, there are scarcely any absolute universally-used criteria to be utilized in deciding for or against operation in the patient under 60 years of age who is not in congestive failure: it depends, to a considerable degree, on the current views of the individual surgeon which, in themselves, vary from year to year as new impressions are gained and experience becomes greater.

In the last two or three years, greater attention is paid in some clinics to the diastolic pressure than heretofore: if there is no significant reduction in this reading after operation (preferably below 100), the result is not satisfactory, regardless of the post-operative drop in systolic pressure. Smithwick[9], in following 156 patients from one to five years post-operatively, judged his results largely by the degree of reduction of the diastolic pressure. He found that the magnitude of renal disease before operation did not affect the post-operative prognosis *per se*. The renal arteriole status, as shown by renal biopsy, was not significant as regards prognosis. He believes that the wider the pulse pressure before operation, the poorer the post-operative result is liable to be. The effect of operation is due largely to decreased peripheral resistance to blood flow. Smooth muscle tone is decreased and peripheral resistance to blood flow is thereby lessened.

The following tests are now carried out in our clinic in the pre-operative examination of patients. The data is then reviewed and a decision reached for or against operation. An effort is made to complete these studies in three days:

1st Day: The blood pressure is taken in all four extremities on admission and the dorsalis pedis and posterior tibial arteries palpated. Urinalysis, blood count and Wassermann; nonprotein nitrogen and blood sugar. Electrocardiogram: if the T wave is inverted in Lead I, a poor myocardium is indicated. Previous coronary thrombosis may also be determined. Seven-foot plate of the chest and determination of the cardiothoracic ratio. If the heart is over 52% of the diameter of the chest, enlargement is present.

1st Night: Sodium amytal test: nothing by mouth from 6:00 P.M. to 9:00 A.M. Sodium amytal gr. iii: 9:00 P.M., 10:00 P.M. and 12:00 midnight. Blood pressure taken every hour during test. If not sound asleep by 12:00 midnight or 1.00 A.M., repeat amytal (gr. iii) and even a fifth time at 2:00 or 3:00 A.M., so that at least two or three readings are obtained *while the patient is sound asleep*, not waking up during the blood pressure reading. A very satisfactory response consists of a drop in systolic pressure of 100 mm. during the night and a diastolic reading below 100 mm. This test may be repeated in two or three days if not satisfactory the first time. Spinal anesthesia may be utilized if no satisfactory drop is obtained with the amytal test. If the blood pressure falls below 140/100 in the amytal test, there is at least a fifty-fifty chance that a satisfactory result will be obtained by operation. Recently, Southworth and Russek[10] have used caudal extradural block analgesia (using 70 cc. of 1% metycaine—obtaining a sensory level to T_{4-6} dermatomes) as a substitute for the amytal test. We have recently used this test with satisfactory results.

2nd Day: Mosenthal test: Directly following the last A.M. blood pressure determination in the amytal test, three hourly urine specimens are obtained. Having been voided after an absolute fast of fifteen hours or more, the specific gravity should, in favorable cases, be 1.020 or more; the patient is then given three to four glasses of water to drink in a few minutes and the specific gravity one or two hours afterward should be below 1.010 (three specimens obtained). This is perhaps the best of all renal function tests, demonstrating the ability of the kidneys to concentrate and dilute the urine promptly. The cold pressor test may then be done in the pre-hypertensive individuals (see above) but is probably dangerous in patients with blood pressure over 200 systolic and unnecessary as well. A hand is immersed in ice water up to the forearm and kept in this position for one minute after sev-

XUM

eral basal blood pressure readings have been made. The blood pressure is taken in the other arm during and after the immersion of the other hand, until a basal (level) blood pressure is again obtained. Hyporeactors (normal) are those in whom the rise is less than 20 mm. Hg. systolic. Hyperreactors are those in whom the rise is more than 20 mm. Hg. systolic and frank or potential hypertensives are those in whom the systolic rise is much greater—50 mm. Hg. or more.

3rd Day: An intravenous pyelogram is done to detect any unilateral kidney disease or adrenal tumor and generally to estimate renal function. Perirenal air insufflation may demonstrate adrenal tumors but is not without risk from air emboli. There is a great need for further perfection of simple hormonal studies of the blood and (or) urine to demonstrate the probability of adrenal tumor in patients with hypertension. If marked ptosis of one or both kidneys is present, nephropexy may be done by the urologist at the time of the sympathectomy. When the pyelogram films are made, a lead marker may be placed at the right 12th rib and left *in situ* after the last film is taken to orient the operator when the incision is planned at operation. A phenolsulfonphthalein test may be done later in the day.

Internist's opinion. Review and repetition of any tests necessary. Examination of fundi. Marked retinal hemorrhage, choked disc and exudates do not in themselves contraindicate operation. The patient is matched for transfusion, especially before the second-stage operation.

Between the two operative stages, a blood count, urinalysis, nonprotein nitrogen and chest X-ray examination are obtained. The second stage is performed from five to seven days after the first, provided the pleura has not been opened, when the intervening period is lengthened to ten to fourteen days. All cases reported in this series have had the bilateral operation, except one (Case 24—Table I), a 36-year-old woman in whom the first (right-sided) operation has sufficed to keep the blood pressure at a very satisfactory level.

A previous cerebral hemorrhage is no contraindication to operation, if the patient's condition at the time of examination is otherwise reasonably good. Congestive failure is an absolute contraindication to operation, although certain of the so-called "malignant" hypertension cases do remarkably well after operation. Peet[11] has recently reported the case of a woman, aged 22, with severe neuroretinitis and a blood pressure of 280/190; after his bilateral operation had been performed, the blood pressure fell to 144/110 three years later; in the first two months the fundi returned to normal. Twelve years post-operatively, the blood pressure was 128/90.

Hypertension with severe angina pectoris is no contraindication, as demonstrated also by Peet in a case of his reported in the same paper: a 40-year-old woman with a blood pressure of 230/150 before operation, and severe angina pectoris, having two to six attacks of pain a day. Five years after operation the blood pressure was 164/114 and she had had complete relief from the anginal attacks since operation.

Early pregnancy and hypertension is no absolute contraindication, although the patient should be warned that abortion may result post-operatively. If it is the first pregnancy in a female near the menopause, splanchnicectomy might properly be tried; if the parents already have several children and the pregnancy appears to be the cause of the hypertension, therapeutic abortion may be the wiser procedure, to be followed by sympathectomy if the blood pressure is not appreciably reduced after the abortion. Pregnancy is possible after bilateral sympathectomy for hypertension, as demonstrated by Case 30 (Table I), the patient (aged 31) maintaining a normal blood pressure throughout the pregnancy and puerperium.

Page and Corcoran[12] state that the average level of the pre-operative blood pressure is not a good index of the result to be expected from operation. When the diastolic pressure is excessively high, a less favorable result may be expected; i.e., the operation is less effective, the greater the severity of the disease. The more labile the blood pressure, the better the result. Smithwick uses the pulse pressure as an index, believing it is more valuable than the average arterial pressure. He studied 156 patients post-operatively with reference to the resting horizontal lowering of diastolic pressure after operation. He found that in those with narrow pulse pressure (less than half the diastolic pressure) before operation, the best results were obtained.

It may happen that patients with many disabling symptoms, especially headaches, precordial pain, feeling of tension, irritability and anorexia, are strikingly benefitted post-operatively, even though the systolic blood pressure is not materially lowered

TABLE I

*S—Smithwick operation
*P—Peet operation

	Sex	Age	Operations 1st Stage	2nd Stage	Blood Pressure Before 1st Stage	Blood Pressure After 2nd Stage (Hosp. Discharge)	Follow-Up Blood Pressure; Time Interval After 2nd Stage; Working Capacity
(1)	M	38	*S	S	230/150	130/90	140/90; 13 mos.; no complaints, works full time.
(2)	F	46	*P	S	220/120	140/100	160/105; 3 mos.; part-time work.
(3)	F	18	S	S	210/120	112/82	130/78; 2½ yrs.; full-time work.
(4)	F	39	S	S	200/130	110/70	135/105; 11 mos.; part-time work.
(5)	F	41	S	S	210/140	120/80	142/106; 2⅔ yrs.; full-time work.
(6)	F	44	S	S	215/125	122/70	150 (S); 10 mos.; part-time work.
(7)	M	47	P	S	240/120	160/120	200/130; 16 mos.; part-time work.
(8)	F	52	S	S	230/120	170/95	145/95; 37 mos.; full-time work.
(9)	M	44	S	S	210/150	175/130	200/140; 1⅓ yrs.; part-time work.
(10)	F	48	S	S	190/128	122/90	168/120; 3 yrs.; full-time work.
(11)	F	33	S	S	220/120	110/65	110/80; 11 mos.; full-time work.
(12)	M	49	S	S	200/130	140/100	135/100; 6 mos.; part-time work.
(13)	F	47	S	S	206/108	90/60	110/75; 16 mos.; full-time work.
(14)	F	29	S	S	190/130	90/50	136/96; 3⅓ yrs.; part-time work.
(15)	M	36	S	P	210/145	140/95	160/130; 2 yrs.; full-time work.
(16)	M	47	P	S	200/130	136/90	155/105; 1½ yrs.; part-time work.
(17)	M	42	S	S	240/160	120/88	Died 2 yrs. after 2nd stage operation, of congestive failure and nephrosclerosis.
(18)	F	22	S	S	225/140	110/80	Repeated inquiries unanswered.
(19)	M	30	S	S	205/140	135/80	190/?; 18 mos.; part-time work.
(20)	F	36	S	S	200/114	120/80	150/90; 22 mos.; full-time work.
(21)	M	51	S	S	240/145	130/85	240/180; 3⅔ yrs.; can't work.
(22)	M	58	S	S	210/120	122/65	250/120; 3⅓ yrs.; full-time work.
(23)	F	49	S	S	185/100	80/60	178/100; 2-5/6 yrs.; full-time work.
(24)	F	36	S	O	190/120	No 2nd oper.	108/88; 3 mos.; full-time work, (1st stage only)
(25)	M	39	P	S	220/150	130/105	160/100; 3 yrs.; full-time work.
(26)	F	37	S	S	220/130	120/80	128/88; 17 mos.; full-time work.
(27)	F	45	S	S	230/120	140/90	150/110; 2 mos.; part-time work.
(28)	M	37	S	S	230/190	182/126	No reply to repeated inquiries.
(29)	F	36	S	S	190/110	190/128	245/140; 6 mos.; GU infection and psychotic; part-time work.
(30)	F	31	S	S	190/150	142/122	130/90; 27 mos.; normal pregnancy; works full time.
(31)	M	39	S	S	230/140	130/85	135/105; 1½ yrs.; full-time work.
(32)	F	54	S	S	255/130	170/110	145/95; 7 mos.; full-time work.
(33)	F	37	S	S	225/145	165/105	184/118; 4 mos.; part-time work.

by the operation, thus enabling them to resume full-time work as wage earners.

Occasionally, the thin or average-weight individual, who is pale and anemic in appearance, has a more severe hypertension than the ruddy-faced, obese patient. Renal clearance tests are of little value in the preoperative study of the patient. Talbott[13] *et al.* reported in 1943 on a correlated study of renal biopsies and renal clearance tests. They concluded that Smithwick's operation had little effect on renal clearance. Although glomerular filtration was reduced in the immediate post-operative period about 20%, within a year it returned to its pre-operative level. Renal plasma flow was essentially unchanged by the operation.

4. *Operative Technique:* As stated above, we prefer the Smithwick technique in all cases. As will be noted from the tabulation of the 33 cases reported in this paper, five of the early cases had a Smithwick operation on one side and a Peet operation on the other, but for the last two years, the bilateral Smithwick operation has been used exclusively.

An intratracheal tube is inserted. This produces a very smooth and quiet anesthesia (ether vapor) and gives the added protection that if the pleura

is opened, by the use of positive pressure, no untoward effect results. If the pleural cavity is inadvertently entered, it is immediately more widely opened so that one's hand can easily be inserted within the pleura, to avoid the development of a post-operative tension pneumothorax. Ideally, the pleura should not be opened at any time, but we have seen no serious complications if it does happen and, of course, many modern thoracic operations today are done through a widely opened pleura as a procedure of choice, without ill effects.

For the first-stage operation (right side), the patient is placed on his left side with the right leg extended, leaning slightly away from the operator. A curved hockey stick incision is made, the vertical limb of the incision being about 5 cm. lateral to the spinous processes (Figure 2). The 11th and 12th ribs are removed after the longissimus dorsi muscle has been reflected off the ribs. The pleura is

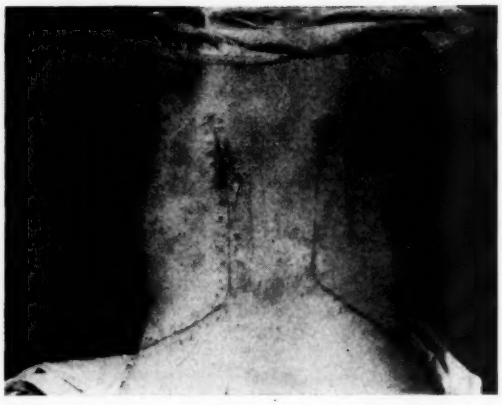


Figure 2: Post-operative photograph of a patient who has had the bilateral Smithwick operation; the lateral (lower) limb of the incision has been shortened in more recent cases.

then gently dissected off the bodies of the vertebrae and the thoracic chain and the greater splanchnic

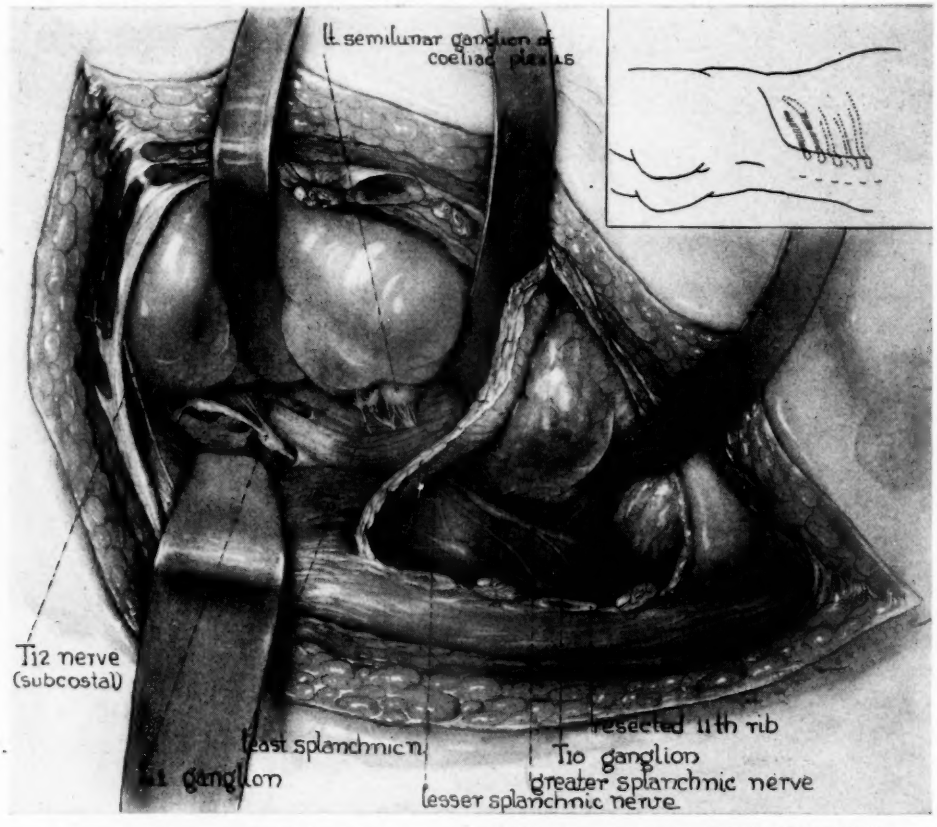


Figure 3: Artist's drawing made at time of operation. The thoraco-lumbar sympathetic chain and the greater and lesser splanchnic nerves and the semilunar ganglion are shown in situ before removal. The 12th thoracic ganglion is almost completely hidden by the diaphragm.

nerve identified (Figure 3). The thoracic chain is severed between T_8 and T_9 ganglia, its rami divided between silver clips or after coagulation. The lesser splanchnic nerve can be seen originating from T_{10} and T_{11} ganglia. The thoracic chain is then mobilized down to T_{12} ganglion (usually beneath and covered by the diaphragm). Every effort must be made especially to remove T_{12} ganglion and all its rami, the most difficult one to visualize. The greater splanchnic nerve is dissected free of the pleura and by traction upward the celiac (semilunar) ganglion is seen and is partly or totally removed with the greater splanchnic nerve. The kidney is then exposed by incising the renal capsule up to the diaphragm. The diaphragm may be divided close to its attachment if desired, to afford better exposure of the lumbar and lower dorsal (T_{12}) chain. We have never seen any complications from incising the diaphragm bilaterally. The lumbar chain may be found separately under the psoas muscle at about L_1 ganglion level or identified by placing a Kelly hemostat on the lower dorsal chain above the diaphragm and gently passing it beneath the diaphragm, thus putting the upper lumbar chain "on the stretch", from which it can be carried down further beneath the psoas with a nerve hook. The lumbar chain to below L_2 ganglion is removed (Figure 4); often the entire thoracic and lumbar chain may be removed in one portion by passing the dorsal chain beneath the diaphragm. Very little bleeding results, as a rule, during the entire operation. Before the lumbar chain is identified, the kidney is palpated, and the adrenal gland as well, to rule out tumor (5% of Smithwick's cases had adrenal

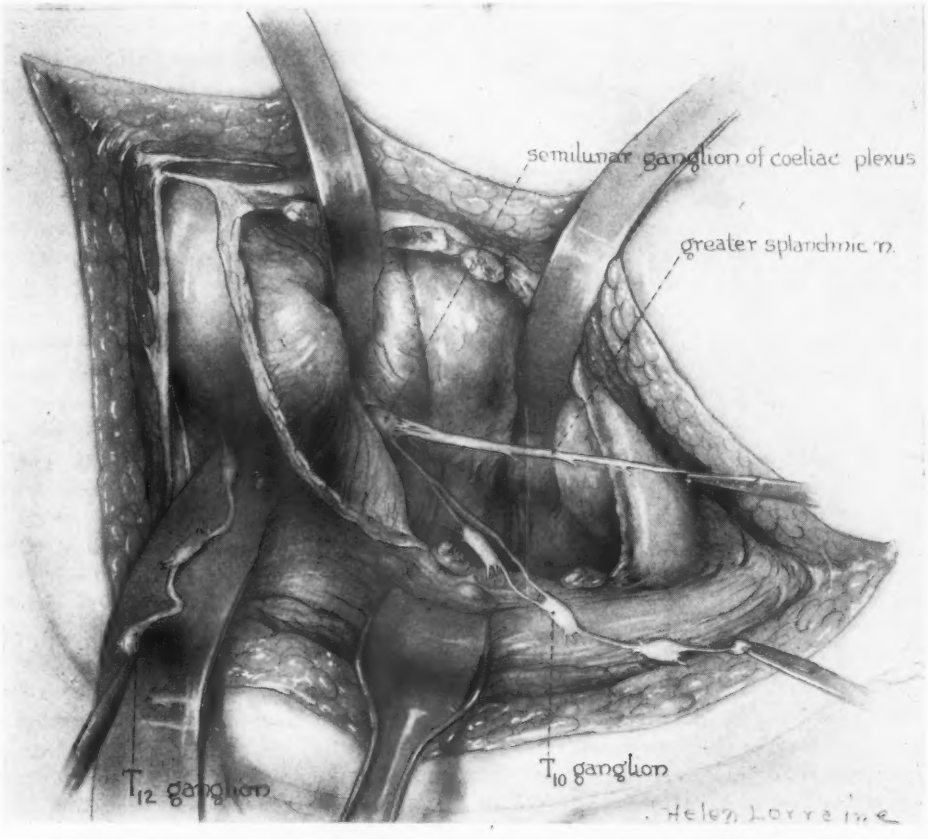


Figure 4: Artist's drawing made at time of operation (later stage). The sympathetic chain and the greater splanchnic nerve are mobilized by severing the rami and are ready for removal. The chain, from below T_5 to below L_2 ganglia, is completely removed, together with the greater, lesser and least splanchnic nerves and part or all of the semilunar ganglion.

XUM

tumor). We no longer take a biopsy of the kidney as we did in a few of the early cases. In the interval between the two operations, there may be little or no appreciable drop in systolic or diastolic blood pressure after the anesthesia effect has receded. In only one patient (Case 24, Table I) has there been a satisfactory prolonged reduction in the blood pressure with freedom from disabling symptoms after the first (right) side only was operated upon (Smithwick operation). The second operation (left side) has not as yet been required (eighteen months after the first stage was performed).

In the second-stage operation, a blood transfusion is begun, routinely, as the sympathetic ganglia are being removed, as there is typically a sharp drop in systolic pressure by the end of the second stage from extreme vasodilation of the splanchnic bed. If the pleura has been opened, two large (#18F) catheters are inserted in the wound at the time of closure, one inside the pleura and one in the retropleural gutter. These are aspirated as the anesthetist applies positive pressure to the lungs, so that, when the catheters are withdrawn and the last skin suture tied, the lungs are fully expanded and no respiratory difficulty should occur post-operatively. Immediately post-operatively, the homolateral leg and lower trunk are warm and completely dry and the superficial peripheral vessels greatly dilated.

5. *Immediate and Late Post-Operative Period:* The patient, on return to his bed, is placed on the unoperated side or his back for the first forty-eight hours. CO_2 inhalations (10% CO_2; 90% O_2) are given every hour until the patient reacts from the anesthetic; thereafter, every two hours for forty-eight hours. If the blood pressure (after the second stage) is below 90 systolic, the foot of the bed is elevated and neosynephrin (mx. iii) is given hypodermically every hour until the blood pressure is above 90 systolic. The sutures are removed on the fifth post-operative day and the patient is ambulatory a day or two later, if not before. It is well to wrap the legs firmly in four elastic bandages and to apply an abdominal binder when the patient first gets out of bed after the second stage. The systolic pressure may be O, in which event the patient will faint. Smithwick[14] states that if postural hypotension (to the degree of actual syncope in many cases) is not present immediately on getting out of bed and standing erect after the second stage, important sympathetic pathways have probably been overlooked at operation; its (postural hypotension) magnitude and duration (up to one year post-operatively) is related primarily to the extent of the operation in the lumbar region.

For the first three to four days, a close watch is kept on the patient, often with an internist's expert aid, for atelectasis, tension pneumothorax, mediastinal shift, excessive bronchial secretions (which may rarely require emergency bronchoscopic aspiration) and cardiovascular complications: coronary or cerebral thrombosis. We have seen all of these complications on one or more occasions, fortunately without fatality, except in one patient, not reported in this series, who died a few days after the first-stage operation due to acute coronary occlusion when he turned in bed several days after operation. On reflection, it is rather remarkable that this complication, or a massive cerebral thrombosis, does not occur more often, especially in the older (45-55) patients, after the second-stage operation when the blood pressure usually drops far below 100 systolic (when he first stands erect), in a patient who may have been carrying a blood pressure of over 200 systolic for years. Patients with hypertension, as a group, are probably the most nervous, "high-strung" and, at times, impatient individuals with whom one has to deal and more or less constant sedation with phenobarbital is often required, both before and after operation.

An annoying hyperesthesia develops in the occasional patient in the flank and lower abdominal wall of the more recently operated side, apparently from irritation of the 11th or 12th intercostal nerves, incident to operation. This is best relieved by Imadyl (histamine) ointment applications and mild sedation; occasionally a course of snake venom affords relief. This hyperesthesia may actually keep the blood pressure elevated post-operatively and not until the patient returns home and the hyperalgesia subsides, does the blood pressure also approach normal. Distention of the abdominal wall and hyperperistalsis of the bowel is complained of by a few of the patients. No bladder complaints have developed. In the male, removal of both L_1 ganglia may result in sterility from loss of ejaculatory power, although potency is retained. The male patients are always forewarned of this possibility (it does not invariably occur) and may elect not to have the operation done or consent only to the bilateral (or unilateral) Peet operation, realizing that the result,

so far as the reduction in blood pressure is concerned, may not be satisfactory for that reason (incomplete operation).

In the 33 consecutive cases (begun in 1943) reported in this paper, there have been no operative or post-operative deaths. Only one patient, to our knowledge, has died since discharge from the hospital (Case 17, Table I), a 42-year-old man, who was readmitted on the Medical Service two years after operation and died of congestive heart failure and nephrosclerosis. Smithwick's[14] operative mortality in a larger series of cases was 2.2%.

6. *The Interpretation of Any Surgical Results on a Statistical Basis,* particularly in a group of patients with hypertension, is difficult, if not impossible, from a comparative standpoint, i.e., comparing one clinic's results with another, as the different clinics report their results often with widely different pre-operative criteria and satisfactory results are recorded for different reasons. As a general rule, the post-operative results in any single clinic will depend largely on the division of the patients into two types of cases: (a) those with a more or less "essential" type of hypertension in patients under 40, whose pre-operative tests may be classified as good or excellent; and (b) a second group, possibly larger than the first, of patients over 40, whose preliminary tests are not good or even, for the most part, are rather poor. The higher the percentage of cases from the second group that are operated on, the poorer will be the over-all results. Whether the second group is large or small in any individual clinic will depend almost entirely upon the boldness of the surgeon and how rigidly he selects his patients for operation and also upon the number of patients in mediocre condition, who have had their hypertension for rather long periods of time (over five years), and for whom operation is finally requested by the internist "as a last resort". The number of these latter rather unsatisfactory cases can and should be materially reduced in the future by early operation in every suitable case of hypertension, regardless of age, as the operative risk is slight, certainly scarcely, if at all, higher (in properly selected cases) than the operative risk in appendectomy. This discrepancy in results is evident from reading recent reports from the various clinics in the country that perform this operation. For example, one writer will be more interested in what per cent of his patients have significant lowering of the systolic blood pressure (below 160 systolic), which, at first glance, would appear to be the most important result. Another writer may stress the reduction in *diastolic* pressure and pay little attention to the fall, if any, in the systolic pressure in his group of cases. Still another may stress, not blood pressure readings, but the improvement in symptoms and ability to work in the patients when the statistics are recorded. Certain conclusions may be drawn as regards age and sex. All writers are in agreement that women do considerably better than men post-operatively and that patients under 40, as a group, do much better than those over 40. But statistical analyses can be carried almost to absurd details; to get really helpful criteria that would aid internists and surgeons alike in prognosis before operation, one would need a significantly large number of patients, so that one could predict with a fair degree of accuracy, what chance, for example, a man over 40 would have of obtaining a significant reduction of blood pressure and amelioration of symptoms, compared with a man under 40. Even this determination would be useless unless it were correlated with the duration and degree of hypertension he had, especially with respect to cardiovascular and renal function and response to the amytal test pre-operatively. One should also know, in compiling post-operative statistics, how many of the post-operative "failures", so far as reduction of pressure is concerned, show evidence of regeneration (pilocarpine test) or of immediate incomplete operation, or demonstrate the possibility of an overlooked adrenal tumor, which would be the cause of failure in certain cases, rather than poor pre-operative cardiovascular or renal function or age of the patient. Post-operatively, the fundal changes usually regress, the E.K.G. improves, the cardiac enlargement is diminished and kidney function is improved, together with the well being of the patient, even though there is little or no reduction in the systolic blood pressure.

It is by no means certain that the Smithwick or Grimson procedure is the best merely because it is the most extensive. For example, in our series of 33 cases (Table I), in four of the five cases that had the Smithwick procedure on one side and the Peet operation on the other side, a satisfactory reduction of blood pressure (160 systolic or less) re-

XUM

sulted, the patients being between 36 and 47 years of age. Such a satisfactory result is by no means true of a number of the younger patients who had the bilateral Smithwick procedure, but as the cases in both groups are not correlated with respect to their renal and cardiovascular status, pre-operative duration of their hypertension, and response to amytal tests preoperatively (in comparing the value of the Peet v. the Smithwick operation), such comparison in this series is of no value.

Page and Corcoran[12] in a recent (1946) critical review of hypertension and operations designed for its relief, state that the effects of operation do not appear to be primarily dependent on the state of the renal arterioles, as judged by renal biopsy, since there was no significant difference in the result in patients with mild or no renal arteriolar disease and those having somewhat more advanced changes; therefore, in all probability, the primary effect of radical sympathectomy is not on the renal vascular bed.

If the operation is performed early soon after the development of the hypertension, the results are distinctly better, even with malignant hypertension. Probably advances in the surgical treatment of the disease in the future will be in that direction more than any other, so soon as practitioners realize the very low operative mortality that prevails today. Peet and Isberg[8] noted that 19% of 112 patients with malignant hypertension were living five to eleven years post-operatively, a figure hardly obtainable with the medical treatment of this usually rapidly fatal illness.

Page and Corcoran[12] concluded that Adson and Craig (infradiaphragmatic operation only) obtained somewhat better results than Peet (supradiaphragmatic operation only), but even the former obtained only 13% of cases that could be classified as good, and 18% as fair with respect to reduction of blood pressure. Relief of symptoms is striking in a larger percentage of the patients. Page and Corcoran reported that in a "small per cent of cases", Peet obtained a definite and prolonged reduction of blood pressure.

Perhaps the best criterion of the effectiveness of the operation, after all, is the determination of how many patients are, post-operatively, able to work full or part-time, or assume their place in the community or home as useful workers. In this respect, our results are satisfactory (Table II), as it is seen that,

TABLE II

ANALYSIS OF 33 CONSECUTIVE UNSELECTED OPERATED CASES:

Total Number	*With Adequate Follow-Up*
Females 20	19
Males 13	12

(Oldest patient, 58-year-old man; youngest patient, 18-year-old girl—both with identical pressure of 210/120).

Post-operative hospital deaths after bilateral operation (33 patients, 65 operations): 0; 1 patient died following discharge two years after second stage, of congestive failure and nephrosclerosis.

	Systolic pressure of 160 or less in follow-up reports after 2nd stage	Systolic pressure of 150 or less in follow-up reports after 2nd stage	Systolic pressure of less than 150 in follow-up reports after 2nd stage
In the Follow-up:			
Of total number of cases reporting (31):	21 (68%)	17 (55%)	14 (45%)

Of the 31 patients reporting: 29 (93.5%) are engaged in part-time or full-time (17 cases) work post-operatively (one died 2 years after operation; and one is unable to work—a (now) 55-year-old man whose pressure was not reduced.)

All the 33 cases but one (whose blood pressure was 185/100) had resting systolic pressures of 190 or more before operation.

of the 31 patients reporting for examination or by letter, 93.5% are engaged in full-time (majority) or part-time work. This is probably a larger percentage than could be obtained by medical therapy alone, especially as a number of the patients operated upon were referred by competent internists after medical treatment had not improved the patient and they were unable to work at all before operation.

7. *Summary:* The 33 cases of hypertension reported in this paper constitute a group of consecutive patients subjected to extensive sympathectomy. The oldest patient was 58 and the youngest 18. All but one had a resting systolic pressure of 190 or more before operation; one had a blood pressure of 185/100. There were 20 female patients and 13 male; all the patients were of the white race. All but two of the 33 patients could be followed up adequately. There were no post-operative deaths in the hospital and only one patient died at a later date, to our knowledge. The most recent patient was operated upon eight months before the data in this paper was assembled, admittedly a too short period for some of the patients, but certain findings and conclusions are probably significant (Tables I, II and III).

TABLE III

AGE AND POST-OPERATIVE RESULTS IN 31 CASES (REGARDLESS OF SEX):

Under 40 yrs.—(15 cases)—12 (80%) had systolic pressures of 160 or less in follow-up reports.

Over 40 yrs.—(16 cases)—9 (56%) had systolic pressures of 160 or less in follow-up reports.

SEX AND POST-OPERATIVE RESULTS IN 31 CASES (REGARDLESS OF AGE):

In 19 female patients: 15 (79%) had systolic pressures of 160 or less in follow-up reports.

In 12 male patients: 6 (50%) had systolic pressures of 160 or less in follow-up reports.

All but two of the patients whose post-operative systolic blood pressure is in excess of 160 (10 cases) are engaged in full or part-time work (Table I).

1. Women patients, regardless of age, may expect considerably better results than men.
2. Patients under 40 years of age may expect considerably better results than those over 40.
3. 68% of the 31 patients (in whom adequate follow-up data is available) had a systolic pressure of 160 or less.
4. Sympathectomy for vascular hypertension in properly selected cases carries a very low mortality.

It is believed that the present operation for the relief of hypertension (bilateral supra and infradiaphragmatic thoracolumbar sympathectomy and splanchnicectomy) is beneficial in selected cases of this disease, as the above data and discussion demonstrate.

BIBLIOGRAPHY

1. Voris, H. C.: Sympathectomy in Peripheral Vascular Disease and Hypertension, *Surg. Clin. N. Am.* **27**:139, Feb, 1947.
2. White, J. C., and Smithwick, R. H.: Automatic Nervous System, Ed. 2, The MacMillan Co., N. Y., 1941.
3. Hines, Jr., E. A., and Christenson, N. A., *et al.*: Symposium on Coarctation of the Aorta (5 papers), Proceedings of the Staff Meeting of Mayo Clinic **22**:121, Apr. 2, 1947.
4. Dandy, W. E.: Surgery of the Brain, W. F. Prior Co., Hagerstown, Md., 1945, p. 440.
5. Castleman, Benjamin, and Smithwick, R. H.: The Relation of Vascular Disease to the Hypertensive State, *J.A.M.A.* **121**:1256, Apr. 17, 1943.
6. Experimental Hypertension (N. Y. Acad. Science), *III*, P. 8, N. Y., 1946.
7. deTakats, Geza, Graupner, G. W.; Fowler, E. F., and Jensik, R. J.: Surgical Approach to Hypertension (2nd Report) *Arch. Surgery* **53**:111, Aug., 1946.
8. Isberg, E. M., and Peet, M. M.: The Role of Surgical Treatment in the Management of Hypertension, *S.O.M.J.* **39**:966, Dec., 1946.
9. Smithwick, R. H.: Surgical Treatment of Hypertension, *Arch. Surgery* **49**:180, Sept., 1944.
10. Southworth, J. L., and Russek, H. I.: A Technique for Testing Hypertensive Patients Pre-Operatively, *Ann. Surg.* **125**:119, Jan., 1947.
11. Peet, M. M.: Results of Bilateral Supradiaphragmatic Splanchnicectomy for Arterial Hypertension, *N.E.J. of Med.* **236**:270, Feb. 20, 1947 (Cases 1 and 2).
12. Page, I. H., and Corcoran, A. C.: Arterial Hypertension—Its Diagnosis and Treatment, The Year Book Publishers, Inc., Chicago, 1946.
13. Talbott, J. H.; Castleman, Benjamin; Smithwick, R. H.; Melville, R., and Pecora, L. J.: Renal Biopsy Studies Correlated with Renal Clearance Observations in Hypertensive Patients, Treated by Radical Sympathectomy, *J. Clin. Investigation* **22**:387, May, 1943.
14. Smithwick, R. H.: Experiences in the Surgical Treatment of Hypertensive Cardiovascular Disease in Man, *Cleveland Clin. Q.* **12**:105, Oct., 1945.

TRAUMATIC APPENDICITIS

STANLEY H. MACHT, M.D.,*
Baltimore, Maryland.

The question of whether or not acute appendicitis can be precipitated by external trauma has been debated at intervals in several journals. Maes *et al*[1] state "Most authorities are willing to admit that trauma may precipitate an acute attack in an appendix which is the site of an existing or a previous pathologic process, but deny that it can initiate disease in a normal appendix. From our point of view, that is rather begging the question; whether the trauma initiates a first attack or precipitates a second one makes no particular difference to the individual who is a victim". Burgess[2] states: "In going over closely the history and clinical course of many cases reported in the literature as instances of traumatic appendicitis, one must admit that coincidence alone would be overtaxed to explain the phenomenon".

The following three cases of acute appendicitis, preceded by trauma and proved by surgery, add additional evidence to the belief that trauma may produce an initial attack of acute appendicitis.

Case 1: P.G., a 15 year old white male, with no history of previous abdominal symptoms or complaints, was injured by several slabs of falling sheetrock. The blow struck the patient over the right side of the abdomen. He continued ambulatory, complaining only of slight soreness in the right side of the abdomen. Thirty-six hours later, the patient was awakened from a deep sleep by severe pain across the entire abdomen. This became progressively more severe and was accompanied by nausea. On examination the temperature was found to be 98° F. There was tenderness and pain on the slightest pressure over the right iliac fossa. Roentgenograms of the abdomen and pelvis showed no evidence of bone injury or gas under the diaphragm. After admission to the hospital the temperature became elevated to 100° F. and the leucocyte count was also elevated. The possibility of a traumatic rupture of one of the visceral organs was considered and a laparotomy was performed. The surgeon noted "Some evidence of a bruise in the abdominal muscles just medial to the spine of the right ileum". A grossly inflamed appendix was found and removed. The patient made an uneventful recovery. Pathological study of the specimen demonstrated an obstructed appendix and early acute suppurative changes.

Case 2: E.D., a 13 year old white male, presented himself ten hours after carrying a flag in a boy scout parade. He had carried the flag in a leather crotch holder for the first few blocks but, because of discomfort, had shifted the pole from the holder up to the right lower quadrant of the abdomen. During the entire parade, which lasted two hours, the lower end of the pole continuously pressed into the right lower quadrant with each movement. Within five hours afterwards there was sudden onset of acute abdominal pain which rapidly became more severe. At operation, eleven hours after the onset of the pain, there was found an acutely inflamed appendix which had perforated. The patient had never had a previous attack of appendicitis nor any previous abdominal symptoms.

Case 3: J. T., a 26 year old married, white female, was admitted to the emergency service because of nausea, vomiting, constant desire to defecate, and excruciating generalized abdominal distress. These symptoms began suddenly approximately six hours previously as she stepped down from a trolley car. The patient gave a history of two less severe, but otherwise identical, attacks, four and six months previously. Each of the three attacks began approximately fourteen hours after sexual intercourse which on each of the previous occasions had been more prolonged than usual. The remaining history was entirely negative. The patient's marital relationship had been satisfactory and there was nothing to suggest a psychosomatic etiology for the pain. On examination the temperature was found to be 97° F., the urine was negative, and the leucocyte count was 15,000. On each of the previous attacks the temperature had been subnormal and the leucocyte count had been 12,000 and 14,000 respectively. The abdomen was soft but there was marked tenderness on deep palpation over the right lower quadrant. At operation the appendix was found deep in the pelvis. It was markedly enlarged acutely inflamed.

*Now Director of Radiology, Baltimore City Hospitals, and Assistant Professor of Roentgenology, University of Maryland Medical School.

It had the appearance of a sausage tied at one end. At its proximal end, 1 cm. from the cecum, it was of normal size. The line of demarcation was sharp between the normal proximal 1 cm. and the remainder of the appendix. There was obstruction at this line of demarcation.

COMMENT

Each of the above cases demonstrated important features in common. These features were those listed by Bate[3] as being important in distinguishing obstruction of the appendix from primary inflammation in an attack of appendicitis. They are: "(1) the great severity of the pain; (2) the suddenness of its onset; and (3) the absence of disturbance of the pulse and temperature during the early stages of the illness". Connell,[4] in an excellent and comprehensive study of traumatic appendicitis, feels that the occurrence of traumatic appendicitis is a rarity. However, in his own survey, made from questionnaires sent to 125 leading surgeons in all parts of the U. S., he reports that, of 81 surgeons replying, 32.27% felt that it was possible for trauma to cause appendicitis, and 29.62% had seen cases in which trauma entered into the etiology. If 29.62% of a group has seen such a relationship, trauma as a cause cannot justifiably be considered as being a rarity. No one has suggested the possibility of acute appendicitis resulting in a female from trauma sustained in prolonged or violent copulation.

It has been theorized that a sudden change in intra-abdominal pressure causes an influx of cecal contents past a narrowed portion of the appendiceal lumen. Distention and subsequent edema then cause complete obstruction. If this were the explanation, it is hard to understand why more cases of appendicitis do not follow the commonly performed barium enema studies. In a vast percentage of the cases the appendix is visualized by barium entering its lumen. It is also frequently visualized six hours after the barium meal has been given by mouth for upper gastrointestinal examination. Such studies indicate that the appendix fills and empties itself of cecal contents more often than is realized. Gomez[5], after X-raying 21,000 patients, states: "The appendix should normally fill with the barium and the lack of visibility after careful roentgen examination almost always indicates that the lumen is obliterated as a result of an inflammatory reaction". In the same paper many other authors are quoted as having visualized the appendix in from 70 to 93% of the cases studied.

A more likely theory than the above would be one based on localized spasm of the intestine as the result of force transmitted from the injury. Hyperemia and tumescence follow relaxation of the spasm and occlude the orifice of the appendico-cecal lumen. Thus the entire chain of events produces obstruction resulting in pus under pressure.

SUMMARY

Three cases of acute appendicitis are described. Two followed trauma to the right lower quadrant. One, subsequently proved to have a deep lying pelvic appendix, followed internal trauma from prolonged sexual intercourse. All three cases presented the common clinical picture of a fulminating type of attack resulting from acute obstruction rather than inflammation of the appendix.

BIBLIOGRAPHY

1. Maes, and McFetridge, R. M.: Traumatic Appendicitis, *Am. J. Surg.* **30**:478-482 (December), 1935.
2. Burgess, C. M.: Traumatic Appendicitis, *J.A.M.A.* **111**:689, August 20, 1938.
3. Bate, J. T.: Appendicitis Induced by Trauma, *Am. J. Surg.* **48**:437, May, 1940.
4. Connell, J. E. A.: *Surgery* **7**:47-60, January, 1940.
5. Gomez, G. E.: Present Value of Roentgenology In the Diagnosis of Appendicitis, *Am. J. Roentgenology* **52**:624-635, December, 1944.

ROENTGEN MANIFESTATIONS OF INTRA-ABDOMINAL ABSCESS*

SAMUEL RICHMAN, M.D.
Radiological Service, Veterans Administration Hospital,
Richmond, Virginia.

Intra-abdominal abscesses frequently offer difficult diagnostic problems and, since prompt surgical intervention is often indicated, any aid in the accurate diagnosis of this condition may be of inestimable value. Roentgen examination of the abdomen has been of particular help in those cases where gas formation is present in the abscess. The organisms responsible for the production of gas may be the colon bacilli or anærobic streptococci. However, even in the absence of gas, evidence of a mass and its effect on neighboring structures plus clinical findings will usually suggest the proper condition. Reference will not be made here to subdiaphagmatic abscesses which constitute a separate entity.

As a matter of illustration of an air-containing abscess the following two cases are presented:

Case 1.—White male, aged 22, was admitted into this hospital on September 6, 1946. He stated that eleven days before he had run into the back of a truck, striking the right side of his abdomen. He had spent most of the intervening time in another hospital from which institution he was transferred here. Patient said that right after the accident he vomited twice, but since then, although he suffered from right upper abdominal quadrant pain and anorexia, he had not vomited. He had been taking fluids normally and had no disturbances in bowel habits. Examination revealed marked tenderness and spasm over the entire right side of the abdomen with moderate tenderness over the entire left side of the abdomen. On rectal examination, tenderness was noted on the right side. On admission, temperature was 103 degrees, and WBC numbered 19,500 with 73% PMN cells. On the following day, the temperature was 101 degrees, and WBC were 27,400 with 91% PMN cells.

Roentgen examination of the abdomen (Fig. 1) disclosed an oval-shaped area of decreased density, approximately 8.0 cm. in greatest diameter, in the right mid-abdomen. No haustral markings were noted in this area and the outline of its walls were smooth and regular. On films taken in the upright, and right and left decubitus positions, a definite fluid level was made out. Gas was seen in the cecum and ascending colon lying lateral to and below this shadow, but no fluid levels could be seen in these portions of the intestine. This finding immediately differentiated the shadow containing the fluid level from large intestine since, if it were part of the latter, the large intestine immediately proximal to this shadow should also contain a fluid level. In addition, numerous small areas of decreased density measuring 0.2 to 0.3 cm. in diameter and arranged in clusters were noted above the large pocket. These were interpreted as encapsulated gas bubbles not yet continuous with the main abscess.

Operation was performed by Dr. David Corcoran. When the peritoneum was opened, a small amount of gas escaped. An abscess containing about one quart of thick B. coli smelling pus was located just medial to the ascending colon. It was well walled off and no perforation was obvious. It was not deemed advisable to disturb the localized process by searching for such a perforation and accordingly the abscess was drained through a stab wound. Patient was placed on chemotherapy and post-operative course was uneventful.

Case 2—Male negro, aged 32, was admitted into the hospital on March 25, 1947, because of abdominal cramps and diarrhea of two weeks duration. Patient stated that he was in good health until two weeks before admission, at which time he was seized with a severe cramping pain in mid-abdomen. The pain in this area lasted for six hours, after which it became generalized. He then took a cathartic which increased the abdominal pain. A physician advised him to enter a hospital for appendicitis. The patient refused and consulted another doctor, who treated him for an "intestinal upset". The pain in abdomen, accompanied by some fever, persisted until three days before admission. Physical examination revealed the patient not to be acutely ill. There was a bulging of right abdomen and a suggestion of

*Published with permission of the Chief Medical Director, Department of Medicine and Surgery, Veterans Administration, who assumes no responsibility for the opinions expressed or conclusions drawn by the author.

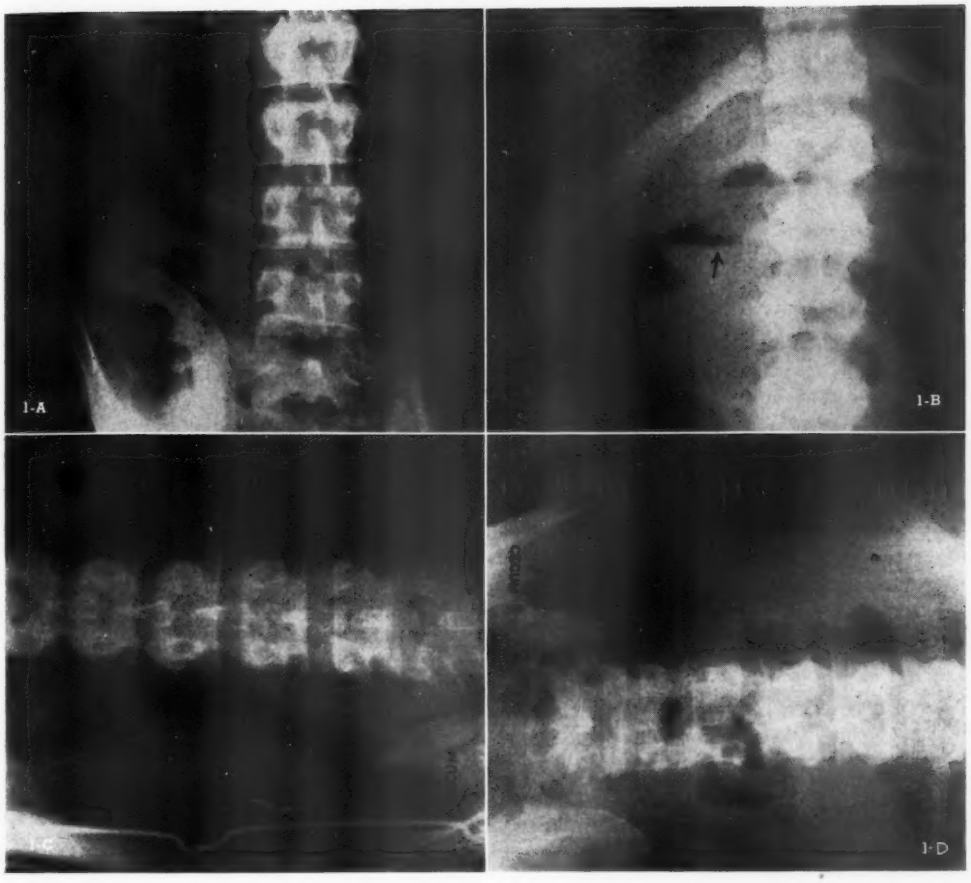


Fig. 1

(a) Area of decreased density (arrows) in right midabdomen, devoid of haustral markings.
(b) Note fluid levels in right abdomen, indicating the presence of at least two separate abscess cavities.
(c) Right decubitus position. One large fluid level is present. The vesicle-like areas of decreased density are outlined with arrows. Cecum has no fluid level.
(d) Left decubitus position. Fluid level is seen to be separate from cecum, which shows no such level.

a mass in right lower abdominal quadrant, over which tenderness was noted. Rectal examination disclosed no mass or tenderness. Temperature was 101 degrees; WBC 14,600, with 81% polymorphonuclear cells.

Roentgen examination of abdomen (Fig. 2) disclosed evidence of a smoothly outlined area of decreased density, 16.0 cm. in greatest diameter, in right mid-abdomen. In upright position, a fluid level surmounted by a column of gas, was seen within the above area. No abnormal distended intestine could be made out. The roentgen findings were characteristic of an intra-abdominal gas-containing abscess.

A diagnosis of an intra-abdominal abscess secondary to a perforated appendix was made and patient was placed on a liquid diet with high protein feedings. Supportive measures including transfusions of dextrose and blood, penicillin and sulfadiazine were employed. Patient became afebrile, his abdomen became normal to examination and his general condition improved considerably. He was discharged after a five weeks stay with the advice that he return for appendectomy in about two months or sooner if his general condition became aggravated.

To demonstrate a typical instance of a non-gas-containing intra-abdominal abscess, the following case is presented:

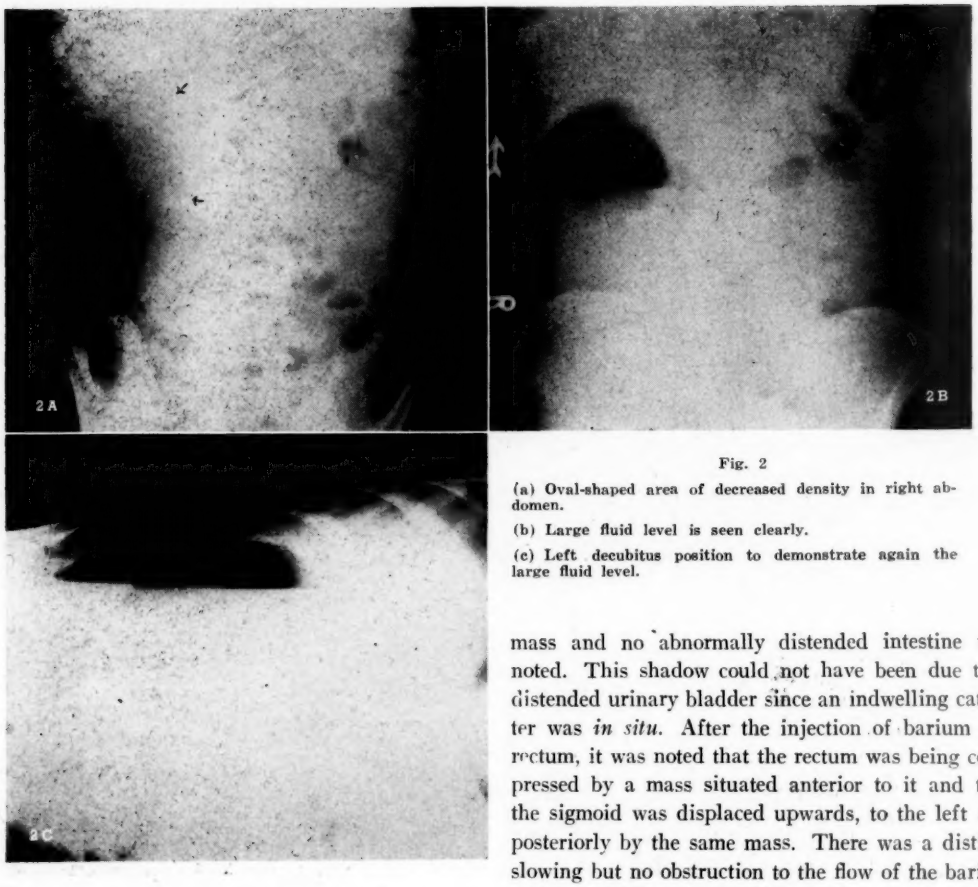


Fig. 2

(a) Oval-shaped area of decreased density in right abdomen.

(b) Large fluid level is seen clearly.

(c) Left decubitus position to demonstrate again the large fluid level.

Male negro, aged 26, was admitted into the hospital complaining of a "swelling" in left lower abdomen, pain and tenderness in that area as well as inability to empty the urinary bladder completely. He had had an appendectomy performed in this hospital sixteen days before and was discharged on the 12th post-operative day in good condition. His present symptoms began on the day following his departure from the hospital. Patient also stated that he had had no bowel movement for four days. Examination revealed an acutely tender abdomen with a large mass in left lower quadrant extending across the midline. This mass was tender per rectum. Temperature was 102 degrees and a moderate degree of leukocytosis was present. Urine was normal but 150 c.c. of residual urine was obtained. Roentgen examination of abdomen (Fig. 3) revealed the presence of a dense soft tissue mass in region of true pelvis. No fluid levels could be made out in this mass and no abnormally distended intestine was noted. This shadow could not have been due to a distended urinary bladder since an indwelling catheter was *in situ*. After the injection of barium per rectum, it was noted that the rectum was being compressed by a mass situated anterior to it and that the sigmoid was displaced upwards, to the left and posteriorly by the same mass. There was a distinct slowing but no obstruction to the flow of the barium and no intrinsic abnormality of the large bowel was found. In conjunction with the clinical findings, the diagnosis of an abscess lying in front of the rectum and sigmoid was made.

At operation (Dr. Philip Morrison, surgeon), an abscess containing old blood and pus was found all about the sigmoid and down along the rectum to a short distance above the perineum. The mass presented beneath the peritoneum in left lower abdominal quadrant. The upper and middle one-thirds of the sigmoid were rotated halfway around medially, forming a partial volvulus. The serosal surfaces of the sigmoid, rectum, and posterior wall of urinary bladder (latter forming anterior wall of abscess cavity) were covered with thick fibrinous material. The abscess wall was cleared out and drains inserted. Also adhesions in the mesentery of the upper one-half of the sigmoid were freed to reduce the volvulus. The appendiceal stump was normal. The

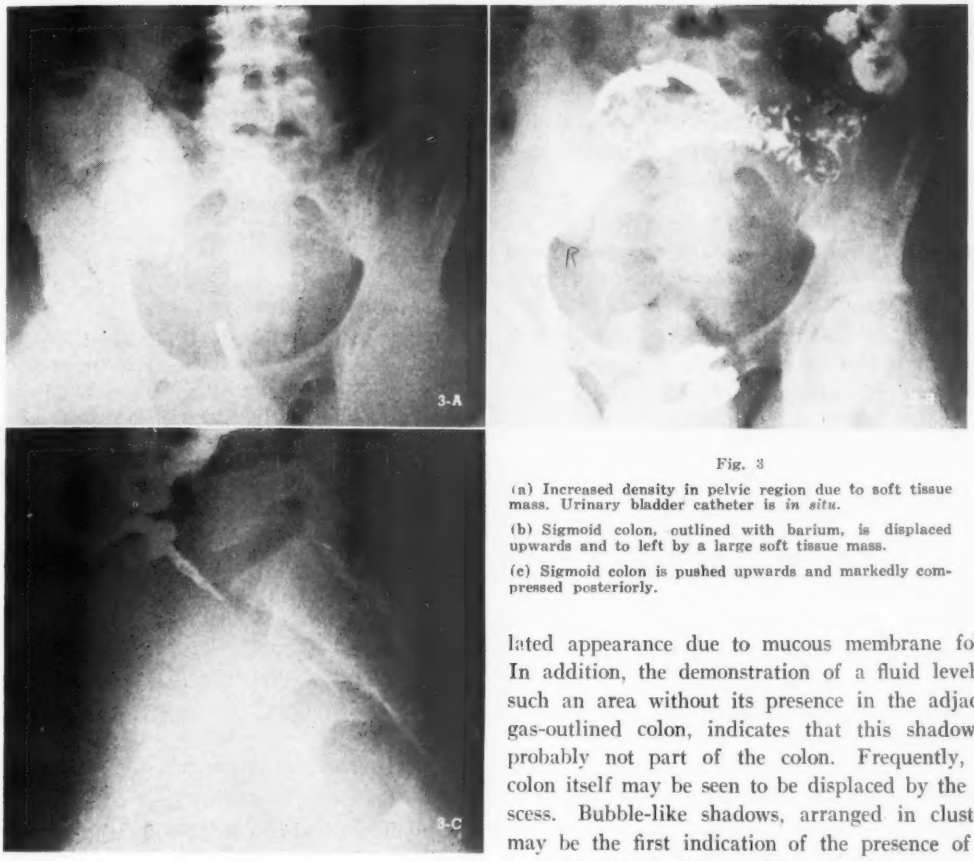


Fig. 3

(a) Increased density in pelvic region due to soft tissue mass. Urinary bladder catheter is *in situ*.

(b) Sigmoid colon, outlined with barium, is displaced upwards and to left by a large soft tissue mass.

(c) Sigmoid colon is pushed upwards and markedly compressed posteriorly.

etiology of the abscess could not be determined definitely, but a ruptured diverticulum of sigmoid was advanced as a possibility. The histological report of the excised tissue was "Abscess wall". Patient made an uneventful recovery and was discharged on the 34th day.

DISCUSSION

On roentgen examination of the abdomen, under appropriate clinical indications, the finding of an area of decreased density showing fluid levels in upright or lateral decubitus examination of the patient, should lead always to the strong suspicion of the presence of an intra-abdominal abscess. This area may be located in some region where the gas-containing structures such as stomach and colon are usually not situated. It is fixed in position as seen in the different views made during the examination and presents a patternless outline in contrast to the colon which changes in position and has a crenelated appearance due to mucous membrane folds. In addition, the demonstration of a fluid level in such an area without its presence in the adjacent gas-outlined colon, indicates that this shadow is probably not part of the colon. Frequently, the colon itself may be seen to be displaced by the abscess. Bubble-like shadows, arranged in clusters, may be the first indication of the presence of an intra-abdominal abscess. These shadows are constant in location in contrast to the colon which changes in position and character. They are due to small air-containing vesicles separated from one another by fine peritoneal adhesions. They do not as yet contain fluid and with the gradual rupture of the adhesions, they will coalesce to form a large single pocket.

In the diagnosis of non-gas-containing abscesses, one finds an area of increased density which displaces the neighboring structures. A diagnosis cannot be made without essential clinical data to differentiate the possibility of such an abscess from a neoplasm.

The technic of the roentgen examination of the abdomen is always to take films with the patient supine, prone (if patient is not too ill to lie on his belly), upright, and a posterior-anterior projection with patient lying on left and then on right side. The diaphragms are always included unless a chest

film also is taken, which usually is the case in these patients.

If a non-gas-containing abnormal shadow is noted, a barium enema and sometimes a barium meal examination is advisable to ascertain the possibility of displacement of those portions of the gastro-intestinal tract adjacent to this shadow.

CONCLUSIONS

1. Roentgen examination of the abdomen may be of inestimable value in the recognition of intra-abdominal abscesses.

2. Evidence of an area of decreased density, with a fluid level below it, is a pathognomonic sign of the existence of such an abscess. Differential diagnosis between such a shadow and a portion of intestine containing gas and fluid is discussed.

3. An area of increased density combined with the demonstration of displaced neighboring structures, in the presence of supporting clinical features, indicates the existence of a non-gas-containing abscess.

4. The technic of the roentgen examination is simple and is explained in detail.

REFERENCES

1. Laurell, H.: Röntgenologische Zeichen abdomineller Ergüsse. *Acta Radiologica* **5**:63, 1926.

2. MacLennan, J. D.: Streptococcal Infection of Muscle. *Lancet* **1**:582-584, 1943.

3. Rigler, Leo G.: Roentgen Diagnosis of Acute Abdominal Conditions. Course delivered at Annual Meeting of Radiological Society of North America. Dec., 1946. Chicago, Illinois.

4. Weens, H. Stephen: Gas Formation in Abdominal Abscesses—A Roentgen Study. *Radiology* **47**:107 (Aug.) 1946.

Bee Stings Not Guaranteed to Help Arthritis.

The common belief that bee stings will alleviate the symptoms of arthritis isn't pure superstition, according to the answer to a query published in the November 8 issue of *The Journal of the American Medical Association,* but bee venom therapy cannot be recommended on the basis of the evidence now available.

"Bee keepers have been said to be immune to arthritis and they have been known to dispense the stings of their bees to the sick," *The Journal* says. "In Europe, places existed where rheumatic patients made pilgrimages for the sake of bee sting treatments. The natural venom of the bee contains a poisonous substance similar to cantharidin and a sapotoxin somewhat similar to that found in snake venom. The physiologic effects produced by injections of the venom of bees are said to be analogous to the effects of administering histamine.

"Since the procedure employed for bringing about the stinging of patients by live bees is somewhat hazardous, methods for harvesting the venom have been developed, and purified preparations suitable for injection are now marketed under various trade names. . . .

"The experiences of American physicians with bee venom therapy of arthritis have been varied. Some have been optimistic but, as most of the optimistic reports were based on uncontrolled studies, the results have not been widely accepted. . . . Untoward reactions to bee venom therapy are fairly common. . . .On the basis of the evidence available at this time, bee venom therapy cannot be recommended. It is not now in use in any of the representative larger American rheumatism centers."

XUM

THE TREATMENT OF LARYNGEAL TUBERCULOSIS WITH STREPTOMYCIN

FRANCIS H. MCGOVERN, M. D.,
and
L. R. BROOME, M. D.,
Danville, Virginia.

Laryngeal tuberculosis is a serious complication of pulmonary tuberculosis, usually indicating a virulent infection in a patient who has minimal resistance to tuberculosis. Modern collapse and other therapies have been successful in reducing the incidence of laryngeal involvement, but the treatment of laryngeal tuberculosis itself has always been prolonged and difficult. The report of Figi and Hinshaw* on the complete healing of cases of laryngeal tuberculosis in a matter of several weeks following use of streptomycin was remarkably impressive.

Similar experience in the rapid healing of tuberculous ulceration of the larynx following the use of streptomycin prompted us to report the following cases.

The first patient, a white male, age 27, was discovered to have moderately advanced tuberculosis involving the right upper lung in October, 1941. He was admitted to a sanatorium and right artificial pneumothorax was induced. An internal pneumonolysis was done soon afterward. A satisfactory collapse was maintained, and the patient consistently improved. He was discharged in May, 1942, to continue his treatment at home. He began to work part time in the Fall of 1942. Late in 1946 reexpansion of the right lung had been attempted, but with little appreciable result. He remained nonsymptomatic and apparently arrested until January, 1947, when he complained of a persistent annoying sore throat without hoarseness. Examination of the larynx showed a large ulcerated lesion involving the right arytenoid and right venticular band. X-ray of the chest showed tuberculosis infiltration in the upper part of the left lung. Biopsy of the laryngeal lesion was reported as chronic granuloma. Under local sulfonamide therapy the ulceration increased in size and depth. The direct laryngoscopy was repeated a month later and the biopsy was reported as follows:

"The sections show a few tiny active miliary tubercles in one of the blocks. There is marked ulceration of the overlying epithelium."

The patient was admitted to the Hilltop Sanatorium on April 4, 1947, for streptomycin therapy. He was given one gram of streptomycin divided in six doses intramuscularly each 24 hours for one week, and then 1.5 grams daily for nine weeks. The streptomycin was also administered as a laryngeal spray every four hours. At the end of two weeks the ulceration showed marked improvement and the pain was relieved, and at the end of one month the ulcer had completely healed. X-ray of the chest showed improvement in the left lung. There were no toxic vestibular or other effects of the drug noted.

The only general measure employed was modified bed rest.

He was discharged on June 29, 1947. Subsequent X-ray examinations of the chest have shown evidence of continued improvement.

The second patient, a white male, age 30, entered the Sanatorium in April, 1942, with the diagnosis of moderately advanced tuberculosis. He was discharged as improved three months later. After resting at home for six months he returned to work and remained well until October, 1944, when he complained of loss of appetite, weight and strength, together with cough, sore throat, and blood spitting. He re-entered the Sanatorium in December, 1944, and has continued under sanatorium care since that time. A right phrenicotomy was done on July 9, 1946, and left pneumothorax started on July 16, 1946. These measures were aimed largely at the sore throat which had been intractable and was requiring local anesthetics to facilitate eating; there was little improvement.

Examination of the throat before starting streptomycin showed an enormous pale, infiltrated, ulcerated, turban-shaped epiglottis; the interior of the larynx could not be seen.

Streptomycin was started as above on August 2, 1947. One week later the patient was able to eat

*Figi, F. A., Hinshaw, H. C., and Feldman, W. H.: Proc. Staff Meet. Mayo Clinic, **21**:427, March 20, 1946.

with comfort for the first time in over a year. The throat has improved steadily but is not yet well. The cords are visible and are not involved. The chronic pulmonary disease has not changed appreciably. The right diaphragm has resumed its function and left pneumothorax is adequate.

Comment.—The role of streptomycin in tuberculosis is just beginning to be evaluated. It is apparently valuable as an adjuvant in the treatment of pulmonary and extra-pulmonary tuberculosis. Tuberculosis of the larynx, hypo-pharynx and tracheobronchial tree appears to be especially favorably responsive to streptomycin. One to three grams of streptomycin given parenterally in divided doses daily has been advised. Aerosol streptomycin has been used in conjunction with the intramuscle injection, using .5 gram of streptomycin hydrochloride dissolved in 20-30 cc. physiologic saline; usually 2-3 cc. is administered at the beginning of each hour for ten hours each day.

Sanatorium care and collapse procedures continue as fundamental treatment.

Inasmuch as the laryngeal lesion in the first case had become progressively larger up to the time of treatment with streptomycin, and healed so promptly, we had little doubt that the streptomycin was the causative factor. The striking symptomatic improvement in the second case illustrates the value of this form of treatment in obstinate cases of tuberculosis.

The response of the pulmonary lesion is also of interest.

Conclusion.—The successful dramatic healing of tuberculous laryngeal lesions following the use of streptomycin is reported. With lowered cost and increased purity and further experience, the role of streptomycin in the treatment of tuberculosis will be more clearly defined in the near future.

604 Masonic Temple

Floral Eponym (60)

ALBERTA

ALBERTUS MAGNUS, 1193-1280.

ALBERT von Bollstädt, commonly called Albertus Magnus, was successively a teacher at Paris and Cologne and Bishop of Ratisbon. He died in Cologne. Siebold gives the date of his death as 1282, although 1280 is the year usually given. He was the Aristotle of his period. He wrote extensively on plants and animals but, according to Garrison, did not write on medical practice, a subject forbidden to Dominicans. The often reprinted work on cosmetics (De secretis mulierum) which goes by his name was really a compilation of his pupil, Henry of Saxony. It contains a description of an early perineorrhaphy.

Alberta is the name given to two species of the madder family. One of the species has been introduced as a hothouse plant.

TREATMENT OF RHEUMATOID ARTHRITIS*

M. MORRIS PINCKNEY, M.D.,
Richmond, Virginia.

Since rheumatoid arthritis is a systemic disease the etiology of which has never been discovered, treatment must be non-specific and empirical, and conceived as a combined operation utilizing all available and known means to restore pathological tissues to a normal state. No patient must ever be promised a cure of arthritis, but told, honestly and simply, the complicated nature of the disease, its tendency to exacerbation and remission, the methods of treatment considered helpful, and newer methods of treatment which are now on trial. The physician must encourage the patient to follow treatment assiduously, though cure cannot be promised, not for weeks only, but for months and perhaps years, and must attempt by every honest manner to substitute in the patient and family hope for discouragement and equanimity for anxiety.

Therapy of such a generalized disease is based primarily on common sense plus patience. The individual as a whole is sick—sometimes feverish, often under-weight, usually anemic, perhaps anorexic, constipated, and always apprehensive and fearful of crippling and invalidism.

In treatment, general measures of accepted value as outlined by Comroe are as follows:

1. Rest in bed on a firm, non-sagging mattress is "essential for weeks or months in the acute, febrile state, in those whose disease is progressing rapidly, in those with marked deformity or inflammation of the weight bearing joints, and in the debilitated."

In less severe states, 2 to 4 hours rest at midday is needed, with 10 to 12 hours in bed at night. Rest in a chair is conducive to deformities and should not be substituted for rest in bed.

2. Rest of the involved joints, with splinting to prevent deformity and ease pain, is essential. Splinting may be carried out by split shell casts, bandaging, sand-bags or braces, and should be removed daily for exercises. Pillows should never be placed under the knees as this is probably the most frequent cause of flexion deformity of the knees. The feet, while the patient is in bed, should be kept in dorsiflexion by means of a footboard or other support. For patients with very tender joints, the weight of the bed clothes may have to be supported by a cradle.

3. Physiotherapy: Active and passive exercises should be begun early. Removing splints from affected joints once or twice daily will permit passive movements of joints to prevent adhesions. In less acutely inflamed states, attempts should be made to move joints through as wide a range of motion as possible by both active and passive exercises. Muscle setting exercises must be done daily by the bed patient, which consist of tightening and relaxing all the muscle groups of the extremities without actual movements of the joints. Deep breathing exercises should be done by all patients, especially those with involvement of the spine.

Hot compresses or formentations may be applied with comfort to acutely inflamed joints for 30 minutes 2 or 3 times daily. Other methods of providing heat may be used for the chronic types if desired. Do not employ ultra-violet radiation, short-wave therapy or hot baths in treatment of individuals with acutely inflamed joints. Gentle massage may be begun early; however, do not massage the acutely inflamed joint, but rather the muscles between the joints by gentle stroking. In chronic and less active cases, more vigorous muscle massage may be used. Remember always that if exercise, massage or heat increase pain or swelling, or cause fatigue, the treatments are too strenuous and must be given subsequently with less intensity or omitted.

4. Diet should be given to suit the needs of the individual. In general, a high calorie, high vitamin diet is needed as the majority of the patients are under-weight. For obese patients, a reducing diet is indicated. Common sense must dictate the diet, as everything else. Meats, milk and dairy products, all vegetables, fruits, and grains are needed, and perhaps extra vitamins, as in cod liver oil, may be used. It may be well to restrict great consumption of concentrated carbohydrates as candy and sweet desserts, for some rheumatic patients note an increase in pain apparently following excessive consumption of sweets. Dietary fads and

*Read at the Symposium on Therapy, February 18-19, 1947, Medical College of Virginia, Richmond, Virginia.

XUM

vitamins in large doses will not cure arthritis, and the writer knows of no controlled series of cases benefited by massive doses of vitamin D or any other vitamin. Frequently the asthenic patient will need an appetite stimulant before meals, for which bitters, alcohol, or even insulin may be used. Many apprehensive patients will be able to eat more if a pre-prandial sedative is employed. The frequency of gastric hypochlorhydria or achlorhydria in rheumatoid arthritic sufferers is such that many require hydrocholoric acid and pepsin with meals to prevent dyspepsia. Diet will usually control constipation, but enemas and laxatives may be necessary.

5. Relief of pain will usually follow immobilization of the inflamed joint by bed rest, splints or bandages. Analgesics sometimes may be necessary, aspirin and/or phenacetin usually sufficing. Practically never are opiates needed, and unfortunately many of those addicted to narcotics appear to have been introduced to such drugs by careless physicians in the treatment of chronic diseases such as rheumatism or asthma. Demerol, of course, is included among the forbidden or dangerous drugs. Sedation may be necessary to induce sleep at night.

6. Anemia, which is usually present, may be treated with iron orally. Sometimes, in the debilitated, transfusions of blood are of great value, using one or more transfusions to restore the blood to a normal level.

7. Thyroid extract is frequently necessary, especially in the chronic rheumatoid whose metabolism is low.

8. Concurrent or associated disease states must be corrected if possible, such as diabetes, cystitis, dental infections, etc. Foci of infections are fortunately not uprooted as radically now as 10 to 20 years ago. We have learned that the removal of an abscessed tooth will not cure rheumatoid arthritis, and such the patient must be told. But abscessed teeth or infections in other parts of the body must be treated as diligently, but more cautiously, in the rheumatic as in the non-rheumatic person. If several teeth require removal, it is best to remove one at a time with several days interval between extractions, and to administer some "sulfa" drug or penicillin for the day before and several days following extraction. "Make haste slowly" with all operative procedure, but attempt to restore to normal all abnormalities.

The suggestions made above are simply those dictated by common sense and are generally accepted as of great value in treatment. Perhaps 50% or more of cases will be "arrested," if such a term may be used, by the above only.

Now we will take up some of the unproven or experimental methods.

1. Prostigmine for the relief of muscle spasm. This, in conjunction with atropine to diminish gastro-intestinal effects, has been widely used in the past several years, and we fear its effects have been disappointing in general. If muscle spasm exists, prostigmine is well worth trying, either 1 c.c. of a 1-2000 solution hypodermically, or orally in doses of 15 to 30 mgm. t.i.d.

2. X-ray therapy seems to be beneficial in certain cases of rheumatoid arthritis—in particular, spondylitis. In rheumatoid spondylitis X-ray "treatment is probably the most valuable single therapeutic procedure available," according to Comroe,[1] "for in most early cases it will relieve or abolish pain, improve motion, and prevent deformities."

Kuhns and Morrison[2] recently reported that, of 98 patients with rheumatoid spondylitis, 15% noted no change after X-ray therapy, 35% noted slight improvement, 38% moderate improvement, and 12% marked improvement. The same authors also noted that, of 154 cases of rheumatoid arthritis without spondylitis, 20% were unchanged after X-ray therapy, 40% showed moderate improvement, and 23% showed marked improvement. In other words, in this series X-ray treatment resulted in moderate to marked improvement in 50% of spondylitis cases and in 63% of cases without spondylitis.

That roentgenotherapy is of definite though limited value in treatment of joints other than the spine is borne out by reports from New York University[3], but other observers are less enthusiastic, and Freyberg,[4] of Cornell, states that roentgen therapy for rheumatoid arthritis of the extremities is unreliable. Roentgenologists in Richmond were informally asked their opinion of the value of X-ray therapy in rheumatoid arthritis. All believe that such therapy is worth trying in the case of early spondylitis in an effort to relieve pain, and the results are occasionally brilliant but often nil. But such treatment is purely symptomatic. No enthusiasm or little was expressed for the use of such therapy in the treatment of peripheral joints in

rheumatoid arthritis. Such treatment should be regarded as a local treatment only, an adjunct to usually accepted medical procedures. Therefore, except in treatment of rheumatoid spondylitis, X-ray therapy should be classified among the unproven agents.

3. Gold therapy has been utilized for 18 years, and its merit is still unproven though its dangers are well known. Unfortunately the use of gold is attended by such danger that each patient to whom it is administered must be closely supervised. Frequent laboratory studies, such as blood leukocyte counts, differential smears, and urinalyses must be done, in certain clinics and offices being performed routinely each week before the injection is given. Before any physician decides to employ gold in his practice, he must familiarize himself thoroughly with all the indications and contra-indications to gold, its toxic properties, and the evidences of unfavorable reactions. The value of gold is undecided but since it is being so widely used by many careful investigators, it is probably of merit. It is not wise to begin gold for several months until a trial of common sense and accepted procedures has failed to check the disease, and then only in selected patients. Careful follow-up studies at the Massachusetts General Hospital published by Short[5] last September accent the questionable therapeutic value of gold. Short and his co-authors declare, first, that gold is not a specific, and, second, that "results obtained with gold may be approximated with those in patients given general conservative treatment."

4. Foreign protein and fever therapy may be helpful in certain cases, such as those complaining of stiffness after the recovery phase has come to a standstill. But seldom is such therapy indicated.

5. Procaine, or nupercaine, has been used to provide relief of pain by infiltration into the muscles and ligaments, but, of course, any benefit is temporary.

6. Many other drugs, vitamins and procedures have been tried without discernible effect, and these will be mentioned and dismissed as useless: liver extract, arsenic, calcium, sulphur, bee venum, benzedrine, iodides, chaulmoogra oil, inhalations or injections of oxygen, inhalation of carbon dioxide, vaccines of streptococci and other bacteria, and even splenectomy.

BIBLIOGRAPHY

1. Comroe: Arthritis and Allied Conditions, Lea & Febiger, 1945.
2. Kuhns and Morrison: *N. Eng. J. Med.* **235**:401-405, September 19, 1946.
3. Borak and Taylor: *Radiology* **45**:377-384, October, 1945.
4. Freyburg: *M. Clin. N. Am.* **30**:603-615, May, 1946.
5. Short, Beckman and Bauer: *N. Eng. J. M.*, **235**:362-367, September 12, 1946.

Infants of Morphine-Addicted Mothers.

Infants born to mothers who are morphine addicts show all the symptoms of a morphine addict whose source of supply has suddenly been cut off, and if not properly treated may die of convulsions during the first week of life, according to an article in the November 8 issue of *The Journal of the American Medical Association*. The author is Meyer A. Perlstein, M.D., Chicago.

"The infants are born at full term and are apparently normal," Dr. Perlstein writes, "but their addiction matches that of their mothers. Separation from the maternal circulation shuts off the supply of drug to the newborn; and withdrawal symptoms ensue within three days. . . .

"In the past, some investigators erroneously assumed that morphine was excreted in human milk; hence, breast-feeding by the addicted mother was a method employed in the treatment of congenital morphinism. It is a fact, though, that morphine is not thus excreted, and the emphasis in treatment is now directed toward sedation."

In the case which Dr. Perlstein mentions dosage with phenobarbital brought about prompt recovery, the drug being continued for eight weeks before being tapered off and stopped.

XUM

TREATMENT OF MIGRAINE*

J. WARRICK THOMAS, M.D.
Richmond, Virginia.

The recognition of a relationship between migraine and allergy is not new. Sick headache has been known for centuries, and its association with the ingestion of food was recognized long before its allergic nature was appreciated. The differentiation of this type of headache from others and which was termed "heterocrania" was recognized by Arætæus. Galen explained the condition of hemicrania on a basis of cortical irritation by black bile. Lesne and Richet, Jr., (1913) were the first to suggest that migraine might be caused by allergy to egg or milk and this was confirmed by Pagniez and his associates. Many others, including Vaughan, have demonstrated conclusively the allergic etiology of migraine. He showed that symptoms were relieved by avoidance of foods to which the patient reacted positively by skin test and that symptoms recurred after the ingestion of the suspected food.

Definition: The word migraine is derived from the Greek and signifies half the skull. It is characterized by periodic or recurrent headache, often incapacitating, usually unilateral, frequently preceded or accompanied by an "aura," usually visual, and as a rule terminating in nausea and vomiting. These headaches may be termed by the laity as "sick headaches." Such headaches must be differentiated and not confused with those due to infection, ocular, oral, sinus disease, glandular dysfunction, from cardiovascular, nephritis, hypertensive disease, from cerebral tumor and other diseases of the nervous system such as syphilis, or from trauma and arthritis.

Severity of migraine headaches may vary from the mild form to blinding or splitting headaches. One or more symptoms may be absent, and the headache may occur alone. Visual or cerebral manifestations may exist without headache and are referred to as "migraine equivalent."

PATHOLOGY

The pathology of migraine is as yet unknown. Rowe described these symptoms as allergic due to localized edema of the meninges or possibly the brain parenchyma, or to vascular spasm from smooth muscle contraction as a result of localized areas of sensitivity in the blood vessels. Some are of the opinion that there is an impairment of liver function, which may be caused by the localized allergic reaction in the liver or the liver may be termed a shock organ in man.

Goltman interpreted the mechanism of the attack as an initial vasomotor spasm evidenced by blanching of the face. Secondary vascular dilation then occurs, resulting in edema of the brain as demonstrated by bulging of the trephined area, causing a disproportion between the size of the cranial cavity and the brain.

Others suggest that the best explanation of migraine is favored by the possibility of urticaria-like lesions.

Alvarez suggests that nausea, vomiting and dizziness in migraine may be caused by cerebral irritation producing vagal stimulation which disturbed the intestinal gradient.

CLASSIFICATION

This headache is so often found to be a symptom of some other disease that it is difficult to think of headache as a separate entity. In general, however, headache may be classified as *allergic* and *non-allergic.*

Allergic Headache.—The allergic headache or true migraine occurs intermittently, often incapacitating, and frequently follows exposure to allergens. It may be unilateral at onset, later becoming generalized, accompanied by or preceded by cortical or visual sensory disturbances, and later ending in nausea and vomiting.

Rowe suggests migraine may be divided into four stages: (1) the prodromal; (2) the aural; (3) the culminative; and (4) post-migrainous. Symptoms of migraine are quite variable and are summarized by Vaughan and Todd as follows: premonitory hyperactivity, or irritability, or depression, disturbed or blurred vision, emotional imbalance, yawning, insomnia, profound sleep, fatigue, bad breath, canker sores, abnormal appetite, nausea, vomiting, constipation, indigestion, body aching, stretching or chil-

*Read at the Symposium on Therapy, February 18-19, 1947, Medical College of Virginia, Richmond, Virginia.

liness. The attacks may progress with pronounced viscereal and vasomotor symptoms involving cranial or peripheral nerves. The pain varies in intensity and location and may be progressive. Nausea and vomiting occur in patients of all ages, varying in severity and in duration from few minutes to several hours. A single attack may persist from a few hours to a week. The residual symptoms include general malaise, drowsiness, anorexia, polyuria, rhinorrhea and varying degrees of exhaustion. Associated symptoms have been described by various authors to include transient psychoses, ocular palsies, neuralgia, paroxysmal tachycardia and epilepsy.

Headaches Secondary to Nasal Obstruction.—These are sinus headaches resulting from nasal or upper respiratory tract allergy and are usually secondary to nasal obstruction, not so characteristic as migraine, and may lack definite symptomatology and periodicity.

Vacuum or Frontal Type of Headache.—This is due to nasal obstruction. The name of this headache is misleading and may be doubted by some. Diagnosis is made by shrinking mucosa on involved side with relief of symptoms.

Non-Allergic Headache is distinguished from allergic or migraine type: (1) headache due to sinus infection; (2) headache secondary to eye strain or other eye conditions; (3) neurologic headache due to disease or trauma; (4) endocrine or metabolic headache, such as is seen in hyperthyroidism or hypothyroidism, or associated with menstrual periods; (5) gastro-intestinal headache; (6) headache associated with cardiovascular disease, such as hypertension or arteriosclerosis associated with small hemorrhages; (7) headaches related to or resulting from bacterial infection due to foci or syphilis, malaria, or acute respiratory disease; (8) headache associated with arthritis, which may be muscular or secondary to frank osteoarthritis of cervical spine; (9) psychogenic headache; (10) miscellaneous headaches or those of undetermined origin; which include histamine headaches, Meniere's disease.

INVESTIGATION

Detailed history and special studies are dependent on the individual cases and may include Roentgen examination, basal metabolic rate, sensitization studies with various foods, inhalants, bacteria, molds and pollens. The medical management of other diseases is important and necessary.

TREATMENT

A. Symptomatic:
1. Ergotamine tartrate (gynergen 0.25 mg.) most effective by hypodermic—DiHydro Ergotamine 1 c.c.
2. Epinephrine 1:1000 (adrenalin — minims 5-15).
3. Coal tar derivatives (acetanilid, phenacetin, or aspirin).
4. Barbituric acid derivatives (sodium amytal, phenobarbital, nembutal).
5. Endocrine therapy, including pituitrin.
6. Saline cathartics and colonic irrigations.
7. Gastric lavage.
8. Avoidance of fatigue and emotional upset.
9. Cold and occasionally hot applications.
10. Narcotics (codeine, morphine, dilaudid, demerol).
11. Oxygen by inhalation.

B. Therapeutic or Curative Treatment:
1. Elimination of allergens, known and suspected
   (a) inhalants
   (b) ingestants (food-diary)
2. Hyposensitization with inhalants.
3. Autogenous vaccine and non-specific therapy.
4. Digestive aids
   (a) Dilute hydrochloric acid
   (b) Bile salts
   (c) Pancreatic enzymes
5. Surgical treatment
   (a) Removal of foci of infection (teeth, gallbladder, tonsils)
   (b) Sympathetic ganglionectomy
6. General measures
   (a) Control of nervous factors, adequate rest, diet, and vitamin intake
   (b) Use of glandular extracts
7. Histamine.

SUMMARY

Headaches are classified as allergic and non-allergic. The etiology and symptomatology of the allergic headache is discussed. Non-allergic headaches are grouped for the purpose of classification and differential diagnosis from the standpoint of etiology and associated clinical manifestations.

Allergic migraine has been postulated as a reaction to contact with an allergen, usually a food, al-

though inhalants have been incriminated. These headaches are recurrent, may be unilateral, are accompanied by visual and gastro-intestinal disturbances, and by pain of varying intensity. The attacks are not infrequently preceded by an "aura," and, if treatment is instituted early, the severe symptoms may be aborted.

Headache secondary to nasal obstruction, such as seen in allergic rhinitis, which may be the so-called "sinus," "vacuum," or "frontal" headache, is relieved by shrinking the nasal mucous membrane. Adequate allergy management is indicated.

Recurrence of headache following exposure to offending allergens and the presence of coexistent allergic manifestations confirm the diagnosis of an allergic or migraine headache.

Urethane in Leukemia.

Urethane, a drug recently used with promising results in treatment of leukemia, sometimes called cancer of the blood because the white blood cells multiply too rapidly, is apparently more toxic in leukemia than is generally believed, John Joseph Webster, M.D., New York, warns in the December 6 issue of *The Journal of the American Medical Association.* He reports the second case in which a patient died after treatment with the drug.

Urethane, used chiefly in other diseases to relieve fever and spasms and produce sleep, has always been considered relatively safe and nontoxic. The first report of the effect of urethane in leukemia appeared in 1946. It revealed that the drug usually causes a decrease in white blood cells in this disease.

In the fatal case which Dr. Webster reports, the patient was treated with x-rays and later with daily doses of urethane. The drug was withdrawn because the patient developed complications, but he died within a short time—with his once-too-numerous white blood cells virtually non-existent.

"Urethane promises to be a valuable aid in the therapy of leukemia," Dr. Webster writes, "but the reports of untoward results warrant further investigation before widespread use is advocated."

New Books.

We give below names of some of the newer books at the Library of the Medical College of Virginia, which may be borrowed by our readers under usual library rules:

Dunbar—Mind and body. Psychosomatic medicine.
Fletcher—Medical disorders of the locomotor system including rheumatic diseases.
Gibb—Optical methods of chemical analysis.
Hauser—Colloidal phenomena.
Hazlett—Introduction to industrial medicine.
Henderson and Fernelius—A course in inorganic preparations.
Jackson and Parker—Hodgkins disease and allied disorders.
Joad—Guide to philosophy.
Kestenbaum—Clinical methods of neurologic examination of the eye.
Kracke—Color atlas of hematologie.
Lederer and Hollender—Textbook of the ear, nose and throat. 2nd ed.
Lilly Co.—Diabetus mellitus.
Psychiatric research, a symposium.
Rubin—Diseases of the chest, with emphasis on x-ray diagnosis.
Sherf and Boyd—Cardiovascular diseases. Their diagnosis and treatment.
Sills and Lesly—Public relations, principles and procedures.
Thomas—Colloid chemistry.
Weaver ed.—The scientists speak.
Weinmann and Sicher—Bone and bones: Trend of bone biology.
Wright—Researches on normal and defective color vision.

CIRRHOSIS OF THE LIVER—SOME COMMENTS UPON THE CLINICAL DIAGNOSIS AND MEDICAL MANAGEMENT*

LLOYD L. THOMPSON, JR., M.D.,
Resident in Medicine, Instructor in Medicine,
Medical College of Virginia,
Richmond, Virginia.

In this discussion of cirrhosis, the subject will not be restricted to cirrhosis as defined by the pathologist. It is fairly generally agreed that to make a pathological diagnosis of cirrhosis, there should be evidence of liver cell degeneration and regeneration with connective tissue proliferation. We have biopsied the livers of a number of patients who have presented themselves with fully-developed clinical cirrhosis. In many of these, the only abnormal finding has been that of fatty change. Thus, we prefer to speak in terms of a chronic hepatopathy, although realizing that in many of these patients, if untreated, the final picture in the liver would be that of a true cirrhosis. Further, we do not choose to separate liver disease into toxipathic or trophopathic disorders, for either of these may produce or contribute to a chronic hepatopathy.

In the diagnosis of chronic liver disease, the patient's history may or may not be helpful. When the liver changes have progressed to the point where there are indicative clinical findings, the disease has probably been present for a long time. A careful inquiry into the patient's past history may reveal that there has been one or more attacks of jaundice which may have initiated the cirrhotic process. There may be a vague history of anorexia, indigestion, diarrhea, nausea or vomiting which were ascribed to causes which seemed more obvious at the time of the complaint. Pain, diffuse or restricted to the right upper quadrant, is a complaint that is not uncommon. This is difficult to explain unless there is perihepatitis or perisplenitis. A feeling of progressive weakness and lassitude, with or without weight loss, over a short or long period of time may be the only reasons why the cirrhotic patient seeks advice. A careful questioning may reveal evidence of thyrotoxicosis. Although this is probably as infrequent as hepatitis as a cause of cirrhosis, it is generally accepted that the incidence of liver damage is high in patients with thyrotoxicosis. I do not feel that the liver has been ruled out as the most responsible organ in the pathogenesis of thyroid crisis. There is much evidence to support the view that thyroid crisis is a manifestation of hepatic failure. When thyrotoxicosis is accompanied by auricular fibrillation and some degree of congestive failure, the patient probably suffers a more marked degree of hepatic insufficiency. Although we have found a consistently higher grade of bromsulphthalein retention in cardiac failure than in cirrhosis, we feel that even repeated bouts of congestive failure do not in themselves frequently cause cirrhosis. True cardiac cirrhosis is a diagnosis more often made by the pathologist than by the clinician.

A history of alcoholic excesses is significant. Although it has been impossible to prove alcoholism to be a direct cause of cirrhosis, the usually concomitant dietary deficiency is probably of profound significance. Experimentally, alcohol alone has not been successfully used in the production of cirrhosis, but when alcohol is used as an adjunct to a method known to produce cirrhosis, a more severe degree of damage is usually produced. It is probable that the most common background in cirrhosis is that of a poor diet, especially one low in certain essential amino acids and the vitamin-B complex.

The cirrhotic patient usually presents himself with one or more of a fairly typical group of signs. In the majority of these patients, the distended abdomen of ascites is the chief complaint. This is probably the result of both portal hypertension and hypoalbuminemia. These factors are also culpable in the production of the edema that is occasionally seen. Hemorrhage, usually from esophageal varices, may not only be the initial sign of cirrhosis in a significant number of cases, but also has been reported as the cause of death in as many as 25% of cirrhotics. We have seen treatment-resistant cardiac failure initiated by hemorrhage from esophageal varices in a patient with mitral stenosis. It must be remembered that bleeding may also occur from the nasal and pharyngeal plexuses with re-

*Read before the Wise County Medical Society, February, 1947.

sultant epistaxis and hemoptysis. One wonders at the comparative rarity of hemorrhoids in cirrhosis; bleeding piles seem to be less important than nosebleed in this condition.

A smaller group of patients present with jaundice; this is indicative of rather severe and far-advanced liver damage and is usually a late occurrence. In this connection, it might be mentioned that the appearance of jaundice in the cirrhotic patient with pneumonia or other severe febrile illness is a bad prognostic sign and may indicate that *exitus* is imminent. Jaundice is often accompanied by pruritis and in many cases the pruritis will antedate the jaundice and all other signs of cirrhosis.

In a few patients hepatomegaly and/or splenomegaly may be the first indication that something is not quite right. Not unusually the splenomegaly is more prominent than the hepatomegaly. We have recently seen a few patients who were referred for treatment of severe anemia that resisted all efforts at treatment. Transfusions, liver and iron were apparently worthless in elevating the marked depression of hemoglobin and red cells. Biopsy showed the presence of chronic liver disease. After a month to six weeks treatment on a "liver regime", these anemias would begin to slowly improve. Fever may be present for prolonged periods of time without apparent cause. We have noted with interest that, after subsidence of infectious processes complicating chronic liver disease, the temperature is frequently elevated for a week or more. Of course, fever itself is deleterious to the liver, the principle autopsy finding in cases of death due to hyperthermia being those of severe liver damage.

The examination of the patient with cirrhosis usually reveals a rather thin (except for the ascitic bulge) apathetic, pallid individual with flushed cheeks and a rather sparse body hair. If a male, as is more common, the patient may exhibit gynecomastia and testicular atrophy. These are generally conceded to be due to failure of the liver to metabolize estrogenic substances. The skin is dry, inelastic, muddy-looking. Evidence of collateral circulation may be seen in enlargement of the superficial abdominal veins. Spider or stellate nevi, a peculiar form of telangiectasia in which small vessels are seen radiating from a central point, are frequently noted on the upper thorax, head and neck. These seem to appear and regress with the severity of the disease. These, together with the purplish erythema often seen on the prominences of the palms and soles, are not diagnostic but are suggestive of cirrhosis.

Not the result of the cirrhosis, but probably the result of a common vitamin deficiency are the peripheral neuropathies and the skin pigmentation about the wrists and ankles sometimes seen in cirrhosis.

Often missed in cirrhosis is the presence of hydrothorax. This occurs in approximately one in ten patients and is frequently sanguinous. This should always be sought for in the cirrhotic patient as a possible source of his discomfort. The usual explanations either for the presence of pleural effusion or for its sanguinity are not quite valid. We have seen sanguinous pleural effusion when the serum albumin was normal and when the prothrombin time was normal.

The medical management of chronic liver disease is in a state of flux. Treatment is still a mixture of empiricism and scientific rationale. However, the prognosis seems to have been greatly improved in the past few years as the result of certain medical treatment.

The simplest and probably most useful treatment is that of a high protein, high carbohydrate diet. The fatty liver will improve within a few weeks upon this therapy alone, as we have seen in serial biopsy studies of the liver. We have used methionine and choline in an effort to increase lipotrophic activity, but recently have discontinued their use. Exceptions to this are the patients who will not ingest an adequate diet. An adequate diet should contain a sufficient quantity of these substances. Since many cirrhotics have little desire for food, it may be necessary to bolster the intake by supplementing the diet with liquid preparations that are high in protein content. A preparation that is useful and inexpensive is made from skimmed milk and skimmed milk powder. Two and a quarter cups of the powder mixed with twenty-two ounces of milk makes a mixture containing 130 grams of protein. If sugar and chocolate or vanilla are added for flavoring and the mixture chilled, a most palatable drink containing over 1500 calories in only one quart is prepared. Of the vitamins, A and B are probably the most important and should be given liberally. Vitamin A is synthesized in the

liver and it is likely that avitaminosis B plays a part in the pathogenesis of cirrhosis. In badly decompensated cirrhosis we give 3 to 5 cc. of crude liver extract daily for several weeks, then twice a week for an indefinite period. We have no objection to the moderate use of alcoholic beverages to stimulate the appetite in patients with cirrhosis. There is no reason to believe that a few cocktails will hurt these people.

If ascites is present, tapping may be necessary, but frequent repetition can often be avoided by the use of diuretics and salt restriction. Diuretics, however, do not work well in the presence of hypoproteinemia. The use of blood and plasma in effective amounts will hurry a diuresis and general improvement when the liver is unable to synthesize blood proteins.

The treatment of esophageal varices is a surgical problem and the results of most procedures are, at best, equivocal. Several recently described techniques, however, show promise of being of some real help in the management of this unpleasant complication.

This discussion was not meant to be complete but was an effort to point out some salient features of importance in bedside diagnosis and treatment. Further research will probably enlighten us on the pathogenesis of this disease and enable us to treat it more adequately.

Bibliotheca Obstetrica

LEVER, JOHN CHARLES WEAVER (1811-1858): Cases of puerperal convulsions with remarks. Guy's Hosp. Rep., London, series 2, 1:495, 1843.

——: A practical treatise on organic diseases of the uterus: being the prize essay to which the Medical Society of London awarded the Fothergillian gold medal for 1843. Newburgh, N. Y., David L. Proudfit, New York, Burgess and Stinger, 1845. viii, 240 p. 22.2 cm. RG301.L4

Lever was the first to report the finding of albuminous urine in connection with eclampsia. His obituary notice in the Trans. Obst. Soc. London (2:7, 1860) says that Dr. Lever affords a striking instance of the success in professional life which may be achieved by indefatigable industry combined with moderate opportunities and unaided by gifts of fortune. He was born at Woolwich and at an early age was apprenticed to Mr. Butler, a gentleman in extensive practice at Woolwich. In the course of time he entered as a student at Guy's Hospital and while a student walked daily to the Hospital from Woolwich and back . . . He gained many honorary distinctions at the annual examinations. At the end of his hospital studies in 1834 he became a member of the Royal College of Surgeons of London and took an active part in organizing the obstetrical department of Guy's Hospital. He obtained an M. D. degree in the University of Giessen and in 1842 was admitted a licentiate of the Royal College of Physicians of London. He and Dr. Oldham were appointed joint lecturers to the Lying-In Charity and the next year (1843) they were appointed obstetric physicians and lecturers on midwifery. In 1849 they were admitted together upon the staff of the Hospital, the first obstetricians to occupy such a position. Dr. Lever was at the organization meeting of the Obstetrical Society of London, December 16, 1858, but shortly afterwards was suddenly seized with a serious illness for which Dr. Addision attended him. He died December 29, 1858.

XUM

PUBLIC HEALTH

L. J. ROPER, M.D.,
State Health Commissioner of Virginia,
Richmond, Virginia

The report of the Bureau of Communicable Diseases of the State Department of Health for January 1948 as compared with the same month in 1947, is as follows:

	January 1948	January 1947
Typhoid and Paratyphoid	10	3
Diarrhea and Dysentery	233	151
Measles	755	496
Scarlet Fever	147	163
Diphtheria	37	37
Poliomyelitis	1	4
Meningitis	8	10
Undulant Fever	7	0
Rocky Mountain Spotted Fever	0	0
Tularemia	17	16

RUBEOLA AND RUBELLA—DIFFERENTIAL DIAGNOSIS

Rubeola and Rubella, otherwise respectively known as Red and German Measles, are two distinct disease entities each having a specific etiological agent with markedly different clinical picture and relative importance. From both the medical and public health points of view it is unfortunate that the term "measles" is applied to both diseases, with diagnosis or report as one. By so doing, confusion has developed among the public, and to some extent in the medical and nursing professions, as to treatment and prevention. It is recognized that rubella occurring in early pregnancy may constitute a serious hazard to both the mother and child, but otherwise the infection is usually mild and of little clinical importance.

Because of known and unknown complications and, secondarily through fatality, rubeola may be a serious disease to the preschool child or older individuals with other disabilities. When known exposure of such groups has occurred, prevention or modification is desirable and may be achieved through use of gamma globulin* or of human convalescent and normal blood or serum. Gamma globulin may be experimentally used for preventive purposes when exposure occurs to rubella during pregnancy, but is otherwise not usually indicated.

It is therefore important to clearly establish the diagnosis and to report each case as a separate entity, and, to this end, the co-operation of all Virginia physicians is earnestly requested.

The main findings in differential diagnosis are presented as follows:

	RUBEOLA	RUBELLA
Incubation Period:		
Onset	10 days	13-15 days
Eruption	14-21 days	1 day later
Febrile Reaction	102°-104°F	99°-101°F
Respiratory Reaction	Moderate to marked nasal and pharyngeal catarrh increasing to bronchitis. Koplik's spots.	Slight pharyngeal and palatine catarrh. No bronchitis. No Koplik's spots.
Conjunctivitis	Moderate to marked.	Slight or absent.
Eruption	Appears 2-4 days after onset. Maculo-papular, brick red color. Discreet lesions becoming irregularly confluent in 24 hours. Eruption lasts 5 days and is followed by desquamation.	Appears within 24 hours from onset. Small discreet, pink macules which may become solidly confluent in 24 hours. Eruption disappears in 48 hours. No desquamation.
Adenitis	Anterior cervical	Posterior cervical, posterior auricular and sub-occipital.
Constitutional Symptoms	Moderate to marked	Slight or absent
Complications	Frequent	Infrequent

*This product is provided by the American National Red Cross and is distributed free of charge by the State Health Department.

FORUM

Correction—Digestive Symptoms Associated with Disorders Located Outside of the Digestive Tract.

TO THE EDITOR:

I received my copy of the January number of the *Virginia Medical Monthly* containing my address before the Medical Society of Virginia last Fall. In reading the article, I note that an omission of a word occurred on page 10, line 14. Since this omission gives a directly opposite meaning to what I had intended to say, I wonder if it would be possible to publish a brief correction note in a subsequent number. Line 14, page 10 reads as follows: "which are related to menstruation". This should be corrected to read "which are *not* related to menstruation". If it is not too much trouble, I would appreciate it if such a correction could be published.

W. HALSEY BARKER, M.D.

1020 Saint Paul Street,
Baltimore, Maryland.

Fellowship and Membership in the A. M. A.

In checking the information cards received from physicians, the Directory Department of the A. M. A. reports that it becomes increasingly apparent that many are not aware of the difference between "Membership" and "Fellowship" in the American Medical Association. Here are the official definitions:

Every MEMBER in good standing in the constituent medical association of the state in which he is engaged in practice whose name is officially reported to the Secretary of the American Medical Association for enrollment becomes automatically a MEMBER of the American Medical Association and is not called on, as such, to pay any dues or to contribute financially to the Association.

MEMBERS of the American Medical Association are eligible to apply for FELLOWSHIP.

To qualify as a FELLOW, a MEMBER in good standing is required to make formal application for FELLOWSHIP, to pay FELLOWSHIP dues and to subscribe for *The Journal.* Applications must be approved by the Judicial Council. Fellowship dues and subscription to *The Journal* are both included in one annual payment of $12.00, which is the cost of *The Journal* to subscribers who are not FELLOWS.

MEMBERS of constituent state medical associations pay dues to those bodies, but as MEMBERS they pay nothing to the American Medical Association. FELLOWS pay dues and subscription to *The Journal* in the sum of $12,00 a year, which has nothing to do with county or state dues.

According to an amendment to the By-Laws of the American Medical Association, no physician may be officially recorded as a MEMBER of the American Medical Association except on the basis of membership in *one* constituent state medical association, and that one the association of the state in which the physician concerned maintains legal residence and engages in the practice of medicine.

Each Fellow receives a Fellowship Card from the Association anually as payment of his dues is recorded, which card is presented for admission to the Annual Meetings of the Association.

Physicians who are eligible for Fellowship should make formal application immediately so that they may attend the Chicago Session and so that a record of their Fellowship may be received in time to include the Fellowship symbol in their data listed in the new AMERICAN MEDICAL DIRECTORY.

Positions Available in U. S. Army Medical Corps.

The U. S. Army Medical Department announces the availability of opportunities for advanced training and experience in the various special fields of medicine and surgery in overseas Army hospitals. These hospitals are registered with the American Medical Association, and this training may be acceptable by the specialty board as part of the period usually required to be spent in limited practice and experience prior to admission for examination. Interested members of the medical profession who have completed the formal training requirements for certification in one of the special fields are eligible to apply for these positions.

These locations provide excellent facilities and equipment, a wealth of clinical material and the services of visiting consultants who are outstanding specialists in the various fields of medical practice. In addition, opportunities will be afforded to observe the work of notable scientists and physicians in German and Austrian Universities.

The applicant may avail himself of this training for periods of one, two or three years. Those

XUM

applicants who are selected, and who hold reserve commissions in the Medical Corps, will usually be recalled to active duty in the highest grade attained prior to release from previous active service. Those who do not hold such reserve commissions will be tendered a reserve commission in the Medical Corps in keeping with their age, years of professional experience and prior service in any branch of the Armed Forces. Prior military service is not required. Individuals who are members of the U. S. Naval Reserve must transfer to the Army Reserve before being called to active duty. Families of married applicants will be allowed to accompany them to the place of duty. Suitable quarters are available. Families of individuals who do not declare their desire to serve for periods to exceed one year cannot be transported at Government expense.

Eligible physicians are invited to communicate with the Surgeon General, U. S. Army, Washington 25, D. C., for further information.

Inquiries should include the following information: Name; Address; Age; Nationality; Marital status; Dependents with age of each; Medical school and graduation date; Internship and date; Details of graduate training; Specialty and geographic location desired; Contemplated length of service; and Details of prior military service.

BOOK ANNOUNCEMENTS

Ulcer. The Primary Cause of Gastric and Duodenal Ulcer; Diagnosis, Medical and Surgical Treatment, Prevention. By DONALD COOK, B.A., M.D., Chicago. Medical Center Foundation and Fund, Chicago. 1947. xiii-187 pages. With 27 illustrations. Cloth.

This volume is neither a literary nor a scientific gem but it could be recommended as a medical curiosity. It is a repetitious melange of fact and "theory". The factual part derives from accepted medical literature on the subject of peptic ulcer. The "theory" is original with the author, who (if he be the only Donald Cook listed in the 1942 A. M. A. Directory) is a graduate of an institution not listed as a medical school.

According to the text the "primary cause of gastroduodenal ulcer" is mechanical. It is supposed that the lesser curvature of the stomach and the first portion of the duodenum are especially liable to a "nutcracker-like" compression between the liver ventrally and the vertebral column and pancreas dorsally. This allegedly produces, in order, ischemia, necrosis, and ulceration of the visceral wall. All operations for the relief of ulcer are good or bad, it is argued, according to whether or not they achieve a removal of the ulcer-bearing area from "the hepato-vertebral notch" or "angle". Likewise the classical Sippy regimen is effective not because of the control of gastric acidity but because the frequent feedings weight the stomach and duodenum down enabling them to escape from the grasp of the hepato-vertebral notch. The existence of etiologically important "secondary factors" is acknowledged but all are said to operate through their influence on the "primary cause of ulcer" elucidated above.

The author consigns transthoracic vagotomy to the "limbo of the ridiculous" and faintly approves unilateral vagotomy via the abdominal approach. Parenteral enterogastrone for the control of gastric secretion is said to be not as sensible as the oral use of olive oil.

All of the book is not as bad as one might expect, but just to prove how bad some of it is the following is quoted: "Married persons are further advised not to allow their sleeping mate to press or lie up against their right costal margin. It is best for the married person with ulcer to sleep on the right side in a double bed, for in this position pressure by the sleeping mate upon the left costal margin will not be harmful".

EDWARD A. DELARUE, JR., M.D.

Practical Child Guidance and Mental Hygiene. By SAMUEL KAHN, M.D., Ph.D., Adjunct Professor of Psychology and Psychiatry at Long Island University; GRACE KIRSTEN, A.B., formerly with the New York City Department on Education and Lecturer on Child Guidance; and MAY ELISH MARSH, A.B., M.A. Boston, Meador Publishing Company, 1947. 285 pages. Cloth. Price $4.00.

Congenital Malformations of the Heart. By HELEN B. TAUSSIG, M.D., Associate Professor of Pediatrics, Johns Hopkins University School of Medicine, and Director of the Children's Cardiac Clinic at the Harriet Lane Home of the Johns Hopkins Hospital. New York, The Commonwealth Fund, 1947. xxxvi-618 pages. Illustrated. Cloth. Price $10.00.

MEDICAL SOCIETY OF VIRGINIA

THE COUNCIL

February 4, 1948

The Council of the Medical Society of Virginia met at the Society's office in Richmond, February 4th, at 3:00 P. M., with the President, Dr. Guy R. Fisher of Staunton, presiding. Others present were: Drs. M. P. Rucker, W. L. Powell, Frank A. Farmer, L. J. Roper, and Councilors—Drs. R. B. Bowles, C. L. Harrell, Guy W. Horsley, J. L. Hamner, W. A. Porter, R. P. Bell, Jr., V. W. Archer, and J. P. King.

Dr. Fisher introduced Dr. Archer whom he had appointed as Councilor for the Eighth District to fill the unexpired term of Dr. J. E. Knight, deceased.

He then announced that the Councilors had been canvassed by mail as to the best date for the State meeting in Richmond and, as a result of this, the dates had been set as October 18, 19 and 20.

The President also announced that the recommendations sent the Governor from which selection should be made to fill vacancies on the State Board of Medical Examiners were:

1st District—Dr. Waverly R. Payne
Dr. S. K. Ames
Dr. Paul Pearson
4th District—Dr. W. M. Phipps
Dr. Edith I. Miller
Dr. Thos. G. Hardy

The first question for discussion was the report of the Budget Committee (composed of Drs. Horsley and Porter) as to a retirement fund for employees of the Executive Office, a matter brought forward from the October meeting. The Committee had made investigations and felt that the number of employees was too small to warrant an annuity plan of insurance. After discussion, the Committee was instructed to investigate this matter and report at the next meeting of the Council, the final disposition to be left to the judgment of the House of Delegates. Motion to this effect was passed.

The executive secretary-treasurer reported that she felt from $10,000 to $15,000 of the Society's funds should be invested so as to be readily accessible if needed, rather than remain in the checking account. Dr. Harrell moved that this be left to the discretion of the President and the Budget Committee. Seconded and passed.

In connection with financial affairs, Dr. George Cooper, Jr., Chairman of the Cancer Committee, had advised that the special appropriation allowed by the Council at the Roanoke meeting for expenses of Dr. Charles F. Branch, incident to attending the Cancer Committee meeting at that time, had been paid by the American College of Surgeons, as his attendance at the Virginia meeting was felt to be part of his regular work.

Dr. Fisher said that at the last meeting of the House of Delegates, Dr. Hundley, Chairman of the Medical Economics Committee, in making his report had made the statement that the Council should discuss the question of discontinuing this Committee as he felt it had "worked out of work", and matters previously handled by the Committee might now be cared for by the Public Relations Committee. It was stated this had been a very active committee in the past and there might be special work for it in the future. In view of this, it was moved by Dr. Harrell and seconded that it should be continued. Adopted.

Another matter referred to this meeting was a resolution presented the last House of Delegates: That the Council be directed to consider the advisability of revising the procedure of the House of Delegates, and that they carry on the study either through their own body, or by a special committee appointed by the Council; and that this be set up for the next meeting of the House of Delegates.

It was moved that the President appoint a committee of five from the Council to cooperate with the Program Committee and arrange a program so there will be no overlapping of sessions of the House of Delegates with the scientific sessions, and that they make recommendations for expediting proceedings, especially in the case of controversial discussions. This was passed and it was also suggested that committees be asked to submit reports in time for them to be published well in advance of the meeting so copies may be sent delegates before they leave for the meeting.

Dr. Fisher appointed Drs. Archer, Farmer, Hamner, Horsley and Bell as the committee of five to cooperate with the Program Committee.

Mr. Winfrey, representing the Connecticut General Life Insurance Company, was then asked to appear before the Council to tell the status of the group life insurance for members. He said that only a little over 600 doctors with their employees had enrolled and it was a disappointment to the Company that the group was not completed. It would take at least 1,200 enrollments to comply with the State law. Were one or two to bring this to the attention of the local society members, as a few had already done, he felt it should be of assistance in securing the required number. The Company planned to send another letter to members early in February and would extend the time to March 1st. He then offered the following new plan from the Company which might make it possible to secure the quota more easily:

New members coming into the State Society during their internship or residency will not be required to participate in the Group Life Plan until they shall have engaged in the private practice of medicine for a minimum of one year. When this qualification has been met they are expected to participate in the plan on the following basis:

XUM

Amount of insurance for the first year—$1,000.00
And, for each succeeding year $1,000.00 of additional insurance until the maximum amount available on the group plan has been reached. No medical examination or evidence of insurability for the increases available under this offer will be required.

Under new business, the following letter from the Albemarle County Medical Society was presented:

TO THE COUNCIL OF THE MEDICAL SOCIETY OF VIRGINIA:

I am enclosing a self-explanatory letter to the druggists of Albemarle County. I am instructed by the Albemarle County Medical Society to submit this problem for your consideration. It may be that the same situation exists in other parts of the State.

The Albemarle County Medical Society has instructed me to write to all druggists of Charlottesville and Albemarle County, drawing to their attention the fact that the practice of refilling prescriptions for dangerous drugs, at the request of a patient but without direction from his physician, is in violation of the Virginia Dangerous Drug Law. Section 1698 A, B, C, D, and E, dealing with this matter, was approved March 13th, 1942. Barbiturates and sulfa drugs are classified as "dangerous." The attention of the Society has been called to an instance in which sulfanilamide poisoning caused death. The drug was taken without the physician's knowledge over a period of months, and was obtained by a prescription which the physician had not ordered refilled. Similarly, a sodium amytal addict was found to be obtaining an unlimited supply of the drug by a prescription which the physician had not ordered refilled. The Society has found that the unfortunate practice of refilling such prescriptions is followed by over half of the druggists in this locality. The Society is sure that the practice has grown up without an appreciation of its consequences, and that this letter will end the matter. However, the Society must warn that, if the practice is not terminated, the Society will be obliged to take further action.

GEORGE COOPER, JR., M.D.
Secretary

November 18, 1947

Dr. Archer said that this letter was mailed to druggists in Albemarle and adjoining counties. It was decided that a copy should be sent to Mr. A. L. I. Winne, executive secretary of the Virginia Pharmaceutical Association, with the request that they might look into this practice of refilling dangerous prescriptions without a prescription from a physician, have a copy of the law sent all drug stores and, if necessary, have the Attorney General see that the law is enforced. This being put as a motion was adopted.

Dr. Fisher said that at a recent conference there had been some discussion of an essay contest for public school children in regard to health matters. The Woman's Auxiliary of the West Virginia State Medical Association had conducted such a plan, it being felt this would be a way to reach and educate a number of parents through their children. He had asked Mrs. DeCormis, President, if the State Auxiliary would be interested in sponsoring such a project, and he read the following letter in reply:

TO THE COUNCIL:

I brought the essay contest suggestion back from National last year. So far we have not been able to sell it to our members.

This year we are trying to place *Hygeia* in all the high schools in Virginia; at least that is our goal.

My idea was to have the high school pupils participate in a contest on material taken from *Hygeia*. In this way they could familiarize themselves with health problems.

I shall try to work on that this year and perhaps by next year we can put it over with a bang.

MABEL LEWIS (MRS. J. L.) DECORMIS

It was moved that this suggestion might be presented to the Auxiliary again at its next meeting.

For the information of the Council, the President said that Garrett and Massie, publishers of Medicine in Virginia in the Eighteenth and in the Nineteenth Century, had advised recently they had received an offer from a New York publisher to take over what stock they had in these two books at $1.00 per copy, and, before closing the deal, they had written the Society to offer some of the books at same price. He had requested the secretary to have Dr. Roshier Miller decide what should be done. In view of storage space, Dr. Miller felt that the Society could take only fifty copies of each volume for re-sale, and he had authorized the purchase of these.

The secretary presented a letter from Dr. Harry B. Taylor, received through Dr. C. J. Andrews of Norfolk, asking if it were possible for him to secure membership in the Medical Society of Virginia. Dr. Taylor, a native of Norfolk, is an alumnus of the University of Virginia, class of '02, and is at present a medical missionary at St. James Hospital, Anking, China. Dr. Harrell said that the Norfolk County Medical Society has an application for membership from Dr. Taylor and, when admitted to that Society, he will automatically be eligible to membership in the State Society, so it was felt no action was necessary on the application at this time.

Dr. King was asked to look into the application of a doctor in his district for remission of his dues as a medical missionary.

A request for financial assistance had been received from the National Society for Medical Research, the program for which is supported by the contributions of medical college, dental colleges, scientific societies, commercial concerns, and individuals. Dr. Archer said this organization is doing excellent work and the University of Virginia had made a contribution toward its support. It was then moved by Dr. Bell, seconded and carried, that this Society give the organization $100.00, this to be taken from the President's contingent fund, which had Dr. Fisher's consent.

Recess was taken for dinner, following which the Council re-convened to talk over medical matters now before

the General Assembly of Virginia. It was learned that the chiropractors and naturopaths had presented bills—S. 102 and H. 119—in this session of legislature, relative to admission for practice without complying with provisions of the act passed by the General Assembly in 1944. In view of this, the following preamble and resolutions were unanimously adopted:

WHEREAS, under the Medical Practice Act of 1944 ample provision is made for chiropractors and naturopaths to obtain licenses prior to January 1, 1950, by passing the regular examinations given new applicants, or by taking a simple examination on five subjects given by an impartial special board created for the purpose; and

WHEREAS, these practitioners registered for these examinations in 1944 and may take them at any time prior to December, 1950, under the protection of the provisional licenses which they obtained for that particular purpose; and

WHEREAS, these groups have presented to the General Assembly of 1948 companion bills which if passed will enable 126 chiropractors and naturopaths to obtain full licenses without passing any examination adequate to determine their competency; now therefore,

BE IT RESOLVED by the Council of the Medical Society of Virginia this 4th day of February, 1948, at Richmond, Virginia, that we declare it to be the considered opinion of more than 2,000 members of the Medical Society of Virginia that no man should ever again be admitted to licensed practice in any branch of the Healing Arts in the State of Virginia until he has established his competency by a proper examination; and

BE IT FURTHER RESOLVED that the Medical Society of Virginia earnestly requests the General Assembly to reject Senate Bill 102 and House Bill 119, and thereby reaffirm its established policy that admission to licensed practice in the Commonwealth of Virginia can only be had through proved competency in the field of medical care.

At this time, a vote of thanks was given Mr. Duval, Mr. Johnson, and the Legislative Committee for the splendid work they are doing for the Society in legislature.

There had been talk of meeting the Governor's budget by combining the Department of Mental Hygiene and Hospitals with the Welfare Department. The Council felt that the Department of Mental Hygiene and Hospitals should not be placed under the Welfare Department, but be continued as it is and be headed by a medical man.

Dr. Fisher read the following letter from Dr. Joseph E. Barrett, Commissioner of the Department of Mental Hygiene and Hospitals:

To DR. FISHER:

The Department of Mental Hygiene and Hospitals, in cooperation with the Committee on Psychiatry in Education of the American Psychiatric Association, and the U. S. Public Health Service, is planning a two-weeks seminar on Psychiatry and related subjects in the early part of April. The Program Committee is working on this project, which we hope to have financed from funds now available by the U. S. Public Health Service.

I thought it might be well if the State Medical Society could be listed as a participating agency in connection with this seminar.

Would you please let me hear from you regarding this subject?

JOSEPH E. BARRETT, M. D.,
Commissioner

It was approved that the Society be listed as a participating agency in connection with this seminar.

Dr. Charles Outland, chairman of the local committee for arrangements of the Richmond meeting, was asked to tell of the plans of his committee. He said he had nothing to tell at this time but did wish to ask some questions, following which there was a discussion as to plans for handling the scientific sessions and housing the exhibits.

Some suggestions offered were that the morning sessions should be scheduled for 9:00 A. M., and that there should be no sections. Also, exhibitors would be asked to have no cocktail parties when the meetings are going on. As soon as a paper is accepted, Dr. Archer, chairman of the Scientific Exhibits, should write the author to see if he wishes an exhibit in connection with his paper. It was also felt the Program Committee should arrange definite hours for members to visit scientific and technical exhibits, so those in charge might be on hand to answer questions. Dr. Archer thought it would add to interest were certificates presented for the best exhibits and these should be judged on the first day by a secret committee of three to be appointed by the President-Elect, and awards made then.

There being no further business, the Council adjourned.

AGNES V. EDWARDS,
Secretary.

Approved:

GUY R. FISHER,
President.

February 14, 1948.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA

President—MRS. J. L. DECORMIS, Accomac
President-Elect—MRS. R. M. REYNOLDS, Norfolk
Recording Secretary—MRS. M. H. HARRIS, West Point
Corresponding Secretary—MRS. HOLLAND TROWER, Eastville
Treasurer—MRS. REUBEN SIMMS, Richmond
Parliamentarian—MRS. E. LATANE FLANAGAN, Richmond
Historian—MRS. H. A. LATANE, Alexandria

Norfolk Auxiliary.

The Annual Public Relations Meeting of the Auxiliary to the Norfolk County Medical Society was held January 27th, in the Medical Arts Library, with Mrs. K. W. Howard of Portsmouth, presiding. This is the meeting to which women from the various civic organizations are invited, the idea being to help foster better public relations and a greater understanding between the doctor and the public.

Dr. N. F. Rodman, speaking on "Social Trends in Medicine", was introduced by Mrs. Southgate Leigh, Jr., the Chairman of the Public Relations Committee. In introducing Dr. Rodman, Mrs. Leigh said his positions on the various hospital staffs and the fact that he was the past President of the Norfolk County Medical Society was well known, but the fact that he is a member from the Second District of the Public Relations Council of the Medical Society of Virginia and a member of the Rehabilitation Committee of the State Board of Education made his talk of greater interest as the Auxiliary is quite interested in medicine from the standpoint of public relations.

Dr. Rodman began by saying that the time was drawing near when a decision would have to be made whether each community would look after itself, or let the Federal Government do it. The various persons who are advocating compulsory health insurance plans are sincere in their beliefs, he said, and they argue that medical care today is too high and it is inadequate. These two charges Dr. Rodman examined and explained with reasonable figures that presented a different picture. As far as the cost of medical care being high, he cited the year 1945 when 149 billions were spent by the American people. Of this sum, 5 went for medical care and 7.8 went for alcohol. 5.8 was spent on recreation and 2.9 on tobacco, etc. So, comparing these with the amount spent on medicine, he did not think in the over-all picture one could say that medical costs were unreasonable. Of course, when a severe lingering illness strikes, any expense is high if provisions have not been made to meet this emergency. The Blue Cross and Blue Shield plans are excellent ways to provide protection for such catastropic illnesses, but few avail themselves of these. These have proved to be the most reasonable plans developed.

The charge that medical care is inadequate can not be refuted in many instances, and there are several ways to help this situation. To meet the need for new hospitals or additional hospital beds, etc., there are funds available through the Hill-Burton Act whereby a community can secure one-third of the money from the Federal Government if the state and local governments will put up the other two-thirds. Virginia has 2.2 millions on which to draw. With the cost per bed now estimated at $14,000., many of the rural areas will be unable to raise their one-third. It will be the responsibility of the state to give more aid to these localities. Dr. Rodman went on to say that there is a desperate need now for 50 neuro-psychiatric beds and 50 surgical tuberculosis patients. The local one-third should be raised easily, but it will be necessary to turn to the Federal and State Governments for the additional funds to secure these beds. In fifteen years, Norfolk will need 800 new general hospital beds.

Many rural areas do not have doctors, and medical care is inadequate there. But, when you consider the cost of his education, the great time it takes to become a doctor, etc., it is not hard to see why the young doctor does not go to these sparsely populated areas where he finds none of the facilities he has been taught to use in the practice of medicine.

Some states have sought to remedy the situation by paying the expenses of medical students on the promise from them that they will practice medicine for several years in the doctor-less areas. This plan, said Dr. Rodman, is one that Virginia could consider. It is in operation in North Carolina now.

Coming to the federal plans of Compulsory Health Insurance again, Dr. Rodman said these were all his views, and not the views of the Nor-

folk County Medical Society necessarily, but he would like to say that no country that had ever adopted such a plan had been able to keep it within the estimated cost. It has been at least double in every case, and in Germany, it cost 100 times more than it was supposed to cost. He also brought to attention that every totalitarian country has had this plan. Bismarck, the first to advocate such a plan, did so because he thought it the best way to control the people. Lenin is supposed to have said "Compulsory Health Insurance is the keystone of Communism". It is a known fact that the quality of medical care has deteriorated in the countries that have tried such plans. There is no reason to believe it would be materially different in our own country should we adopt any of the plans presented to our Congress, judging from the provisions or these bills submitted.

Mrs. Howard made several announcements about the standing of the local organization in regards to the number of subscriptions of the *Bulletin* and *Hygeia* secured by Mrs. Foscue Brock and Mrs. A. L. Kruger.

She announced that the Norfolk County Medical Society Auxiliary was well represented at the State Board Meeting in Richmond on January 20th. Those attending were Mrs. R. M. Reynolds, State President-elect; Mrs. C. M. McCoy, Program Chairman; Mrs. C. H. Lupton, Immediate Past President; Mrs. K. W. Howard, President of the Auxiliary; Mrs. M. S. Andrews, President-elect; and Mrs. J. R. St. George, Vice-President of the Auxiliary.

The Auxiliary voted to "adopt" a doctor at the Blue Ridge Sanitorium for one month through contributions to the Leigh-Hodges-Wright Memorial Fund.

April 27th has been announced as the date for the annual auxiliary luncheon.

Dr. Rodman gave this same talk over the radio station W.G.H. on the program *Freedom is Our Business* on the night of January 27th. This, too, was arranged by the Public Relations Committee of the Woman's Auxiliary with Mrs. Southgate Leigh as chairman.

PATTIE ALSTON BOUNDS SELLERS
(Mrs. W. P.)

More Cancers Found.

A nine-months' survey of cancer detection centers in one state shows that 10 to 15 times as many cancers are being discovered in male examinees, and twice as many in females, as would be expected from the general cancer prevalence rates by sex and age. These facts are revealed in a report by Howard W. Jones, Jr., M.D., and W. Ross Cameron, M. D., Baltimore, in the December 13 issue of *The Journal of the American Medical Association.*

The two doctors state that from November 1, 1946 to July 31, 1947 a total of 1,709 persons were examined in cancer detection centers in Maryland, 336 being men and 1,373 women. By means of the expected prevalence and detectability rates only 0.56 case of cancer would have been anticipated in the male and 4.9 cases in the female examinees. Actually eight cancers were found among the men and nine among the women.

Although a cancer detection center represents a casefinding clinic to which only persons who are free from cancer symptoms are supposed to be admitted for examination, the writers suggest that a high proportion of the patients come to such centers because of minor complaints or because of the occurrence of cancer in their immediate families. They are therefore not a true cross section of the population as a whole.

"An incidental, but important finding," the doctors also write, "was that 36 per cent of men and 51 per cent of women examinees were referred to their physician because medical or surgical conditions other than cancer were discovered."

EDITORIAL

Scientific Exhibits

THOSE of us who have attended large national meetings in the past few years have been impressed with the increasing emphasis laid on the *Scientific Exhibits*. The exhibits are stressed in the programs, are given prominent places in the floor layout, and awards are given.

Those of us who have exhibited at national meetings realize that if we have a "story" to put across, one of the very best ways to accomplish this is through a *Scientific Exhibit*. During the course of the meeting, practically all in attendance will go through the exhibit, examining carefully those which are of particular interest. Definite schedules are printed in the programs stating the periods during which the exhibitors will be present at their exhibits, so that those interested in a particular exhibit will have an opportunity to hear the exhibitor give his "story", and then can ask questions.

In the past, space limitations, and lack of equipment, have hampered the progress of the *Scientific Exhibit* at the annual meetings of the Medical Society of Virginia. Certain steps are now being taken to remedy this situation. The House of Delegates has appropriated $1,000 for additional scientific exhibit equipment and from this fund illuminating frames for transparencies have been purchased. The lack of these frames has been a great deterrent to prospective exhibitors in the past, since each exhibitor had to furnish his own viewing boxes. Additional equipment will be purchased as needed. Very attractive ample space in the John Marshall Hotel has been allocated this year, providing the best space for the exhibits in recent years.

Adequate, well-situated space ordinarily is still somewhat of a problem due to the custom of having the entire State meeting housed in one hotel. There are very few hotels in Virginia which can adequately house the Scientific Exhibits, the commercial exhibits and the meeting rooms. Your *Scientific Exhibit Committee* is working with the various officers of the State Society in an attempt to remedy this. It has been suggested that the meetings and exhibits be housed in armories, or in other similar buildings, as is done in the larger meetings. This, of course, would entail rental of additional space, but the increased number of paying commercial exhibits would partially offset this.

Definite periods of time for viewing the exhibits will be incorporated in the printed program, and all exhibitors, or their representatives, will be requested to stand by at their exhibits during these periods.

Another move aimed at stimulating interest on the part of prospective exhibitors is the institution of awards for the exhibits judged best by an *Awards Committee*. Three awards will be made at the public meeting on Monday night. The Awards Committee is secret, being appointed by the President-Elect.

It is sincerely hoped that there will be added interest in the *Scientific Exhibits* which should form such a valuable part of every medical society meeting. If possible, each person writing a paper to be presented before the Society should prepare a scientific exhibit in addition. The exhibit does not have to be at all elaborate. One of the exhibits winning a gold medal at a recent A. M. A. meeting consisted of only a few placards and some test tubes. If an essayist feels that he has material justifying its presentation before the meeting in the form of a paper, he should be prepared also to answer questions pertaining to this paper. Time does not permit much general discussion from the floor and there are many minor questions which arise which are of interest only to an individual, hence they remain unasked. All in attendance at

the meeting will know that the essayist, if he has an exhibit on the same subject, will be at the exhibit during the specified periods, and can answer these questions. The programs will carry notations concerning the associated exhibits along with the regular listing of the papers.

All members contemplating the presentation of papers at the 1948 meeting of the State Society are urged to communicate with the *Chairman of the Scientific Exhibit Committee,* Dr. V. W. Archer, Box 1637, University Station, Charlottesville, Virginia. Members having worth-while material to exhibit without a paper also are urged to communicate with the committee before August 1st, so that proper space may be reserved.

THE MEDICAL SOCIETY OF VIRGINIA NOW HAS VIEWING BOXES AND OTHER EXHIBIT EQUIPMENT.

V. W. ARCHER, M.D.

Wholesale and Retail Medicine

AT a conference last Fall Dr. Roper referred to public health medicine as wholesale medicine. In some ways the reference is quite apt. The health officer deals with people *en masse.* For instance Dr. Allen Freeman entitled his recent autobiography *Five Million Patients.* In contrast the private physician deals with individuals. If you try to extend the analogy further it breaks down. In business the wholesaler endeavors to increase retail business, for the greater the retail sales the greater the wholesale sales. In medicine public health workers endeavor to reduce sickness to a minimum. The more efficient the public health administration the less sickness the private physician has to deal with.

Just now we are confronted with a strange spectacle. Virginia is attempting to perfect its public health organism, wholesale medicine if you please, and the United States Government is trying to pass a law to permit it to engage in a vast and expensive system of retail medicine. A stranger spectacle is that our newspapers oppose the relatively cheap and effective wholesale medicine on the ground that it is too costly, and endorse retail medicine at the Federal level which would cost Virginia tax payers much more money.

The State Health Department is asking for an increase in its appropriation for three main objects; (1) to increase the number of local health officers so that the whole State will have adequate health services; (2) to enlarge and modernize hospitals for the care of mental diseases; (3) to make adequate provision for the cure and care of tuberculous patients. There was a time when tuberculosis and mental diseases were considered hopeless. Not only was recovery very unusual, but the course of these diseases was so long drawn out that the care of these patients was beyond the means of all but the very wealthy. Modern treatment, especially if begun early, cures many of them and they thereby cease to be a public charge. Instead of being consumers of taxes they become tax payers. Therefore the increase in the State Health Department budget would, in the long run, save money, to say nothing of the saving of lives. It is cheaper to cure these patients and prevent new cases than it is simply to care for them.

In contrast the proposed Federal project of retail medicine has nothing to recommend it from the standpoint of economy. President Truman is demanding that Congress provide this country with Compulsory Sickness Insurance. Instead of preventing sickness, it pays people to be sick. It not only provides free hospital, nurses and doctors, but gives the patient a cash bonus. The cost is estimated to be 300

XUM

billion dollars for the first year. In countries, such as New Zealand, where such plans have been tried the actual cost has been many times greater that the estimated cost. This huge sum is to be raised by payroll deductions and a tax upon industry supplemented by Federal funds. This country is already short on hospital beds, nurses and doctors. If the government pays people to be sick, one wonders where and how they will be taken care of. We have said nothing of the deterioration of medicine. Medicine has deteriorated in every country that has tried such a plan. It cost Germany its supremacy. This cost in dollars and cents is a very real one, although not so obvious as the 300 billion dollars of estimated cost. Nevertheless it is vital.

Our newspapers are opposed to spending more money on public health at the state level but sanction, at least tacitly, Compulsory Sickness Insurance at the federal level. Maybe they think that the money comes from Washington and will not cost Virginians anything. However the pay roll deductions, the tax on industry and the Federal taxes would become very real if such a federal law were enacted, and then it would be too late to do anything about it. One of the strongest arguments for Compulsory Sickness Insurance is that the States are doing nothing for the health of their citizens. If the State Health Department is adequately provided for, there is less chance of Compulsory Sickness Insurance passing Congress. Personally, we would rather spend our Virginia tax dollar for the prevention of sickness, than to have to spend our hundreds of Federal tax dollars for politically administrated medicine.

William Lowndes Peple, 1875-1948

ON February 7th, the most beloved Richmond Surgeon, died at his home, 1209 West Franklin Street. Born in Manchester, Virginia, December 5, 1875, of a family all the members of which were noted for intellectual achievements, he attended the public schools of Manchester and Richmond. He graduated in Medicine at the University College of Medicine in 1897 and served his interneship at St. Luke's Hospital at the time that Dr. Hunter McGuire was at the height of his fame. He was identified with St. Luke's the rest of his life. At the time of his death he was the senior surgeon of St. Luke's Hospital and Emeritus Professor of Clinical Surgery at the Medical College of Virginia. During the first World War he was Chief Surgeon of Base Hospital 45.

Dr. Peple was a sound surgeon and devised many useful implements which were widely adopted. One of these was an operating table for infants, which was placed on the top of the ordinary operating table. It not only raised the tiny patient so that he was not lost among the drapery, but it had a receptacle for a hot water bottle so that one could guard against an undue loss of body temperature during an operation.

He took an active part in the Richmond Academy of Medicine and in the Medical Society of Virginia. He was an ex-president of the Academy and served on many important committees in both societies. It was always a great pleasure to serve on a committee with him for it gave one an opportunity to enjoy his wit and wisdom to the utmost. As a raconteur he had few equals. Years ago when the Pi Mu Fraternity held a national convention in Richmond, Dr. Peple high-lighted the meeting with his anecdotes. He held extra-curricular sessions in the basement of the old Westmoreland Club and his supply of stories was inexhaustible.

Dr. Peple was a fellow of the American Medical Association, the Southern Medical

Association and the Tri-State Medical Association of the Carolinas and Virginia. He was the president of the latter in 1925.

His last paper, "Enterogenous Cysts of the Duodenum, with Report of a Case Which is Most Unusual, if not Unique", was read before the Southern Surgical Association last December. Dr. Peple was ill at the time and could not be present. Dr. Peple's case was unique in that his patient was an adult, but the occasion was interesting to us because of the evident esteem these surgeons had for the author.

SOCIETIES

Virginia State Board of Medical Examiners.

At the meeting of the Board held December 4-6, 1947, the following were granted certificates to practice in Virginia:

Dr. Vance Thompson Alexander, Arlington.
Dr. Samuel K. Ashby, Norfolk.
Dr. Richard Tuberville Arnest, Oldhams.
Dr. Janie Maryleen Bailey, Rich Creek.
Dr. Cecil Cooper Bell, Jr., Kecoughtan.
Dr. Robert E. Bishop, Norfolk.
Dr. Reba Noelle Gwyneth Bliss, Norfolk.
Dr. Theodore Bliss, Norfolk.
Dr. Percy A. Bryant, Bay Minette, Ala.
Dr. Josephine Jordan Buchanan, Richmond.
Dr. James Butcher, Richmond.
Dr. Joseph Thomas Byrne, Richmond.
Dr. Curtis W. Caine, New Orleans, La.
Dr. Neil Callahan, New York, N. Y.
Dr. Stephen Childrey, Norfolk.
Dr. Clyde Mabry Collins, Appalachia.
Dr. Gerhard Cotts, Colony.
Dr. Frank Joseph Curran, Charlottesville.
Dr. Monford Daniel Custer, Jr., Winchester.
Dr. James Gillespie Dickson, Hot Springs.
Dr. Ernest Malcolm Dixon, Charlottesville.
Dr. Howard Alexander Donald, Washington, D. C.
Dr. Frederick Denton Dove, New York, N. Y.
Dr. Thomas Joseph Dugan, Jr., Washington, D. C.
Dr. Isaac Cooper East, Williamsburg.
Dr. Everett Carroll Eickhoff, Newport News.
Dr. James Paul Elkins, Norfolk.
Dr. Frances A. Ford, Winchester.
Dr. Lester I. Fox, Arlington.
Dr. Newland W. Fountain, Roanoke.
Dr. William L. Foster, Augusta, Ga.
Dr. Myron Harrison Green, Lynchburg.
Dr. Boyd Withers Haynes, Jr., Richmond.
Dr. William Samuel Hooten, Lynchburg.
Dr. Robert Clarence Hunt, Fairfax.
Dr. Thomas Gray Hurdle, Hampton.
Dr. Sidney Isenberg, Richmond.
Dr. Chester Earle Johnson, Jr., Staunton.
Dr. Harold Keen, Clinchco.
Dr. Walter O. Klingman, Charlottesville.
Dr. Leon Moses Kruger, Logan, W. Va.
Dr. Richard Henry Laning, Amherst.
Dr. George Calvin Lawrence, Greensboro, Ga.
Dr. Edward David Levy, Norfolk.
Dr. Stuart Hinman Light, New Orleans, La.
Dr. Sidney W. Lowry, Washington, D. C.
Dr. Chester P. Luxwiler, Hampton.
Dr. Gerald Hugh McAteer, Washington, D. C.
Dr. Francis Nichols McDonald, Arlington.
Dr. Edward Allen McEver, Bonny Blue.
Dr. John Davis Middlemas, Woodberry Forest.
Dr. Clarence Fisher Morrison, Philadelphia, Pa.
Dr. Edward G. Naslund, Luray.
Dr. George Maynard Nipe, Dayton.
Dr. Robert Lansing Norment, Arlington.
Dr. James Lee Pipes, Dunbar.
Dr. Charles D. Prather, Leesburg.
Dr. Robert Douglas Ralph, Vienna.
Dr. Dina Braude Rappaport, Arlington.
Dr. Robert Arthur Richards, Charlottesville.
Dr. Francis Regis Riesenman, Washington, D. C.
Dr. Ella Pendleton T. Robeson, Hampton.
Dr. William Laird Sager, Ft. Slocum, N. Y.
Dr. Mary K. Sartwell, Washington, D. C.
Dr. Eugene David Schwartz, New York, N. Y.
Dr. John Norman Shadig, Washington, D. C.
Dr. Robert James Smith, Rich Creek.
Dr. Joe Bill Spaulding, Raven.
Dr. Herbert W. Swertfeger, Hopewell, N. J.
Dr. Herman I. Switkes, Hampton.
Dr. Elmer W. Sydnor, Jr., Jefferson City, Tenn.
Dr. Charles Henry Townes, Petersburg.
Dr. Harold E. Troup, Williamsburg.
Dr. Kenneth V. Tyner, Leaksville, N. C.
Dr. Joseph Lamar Whatley, Marshall.
Dr. Warren Seymour Wilkins, Hampton.
Dr. Grover Cleveland Wrenn, Roanoke.
Dr. Alvin Charles Wyman, Alexandria.
Dr. Charles Merriwether Zacharias, Richmond.
Dr. Francis L. Zinzi, Arlington.

Alexandria Medical Society.

At its regular monthly meeting in February, the Society was addressed by Dr. Lent Johnson, of the Army Institute of Pathology, whose subject was "The Dynamic Pathology of Eclampsia". Newer concepts into the etiology and understanding of this disease were brilliantly presented by this very able investigator.

GEORGE SPECK, M. D.,
Secretary

XUM

Danville-Pittsylvania Academy of Medicine.

New officers of the Academy are: President, Dr. Prentice Kinser; vice-presidents, Drs. W. E. Overcash and G. V. Thompson; and secretary-treasurer, Dr. Clayton Brantly, Jr.

Lynchburg Academy of Medicine.

Dr. Porter P. Vinson, of the Medical College of Virginia, Richmond, was the guest speaker at the regular meeting of the Academy on February 9th, his subject, "Diaphragmatic Hernia", proving quite interesting.

At the short business session, Dr. William S. Hooten of Lynchburg, and Dr. J. E. Pisano of Brookneal were elected to active membership.

Dr. H. L. Riley and Dr. John T. T. Hundley, both of Lynchburg, are president and secretary, respectively.

Medical Society of Northern Virginia.

The annual meeting of this Society was held in Woodstock on December 9th, with the President, Dr. D. M. Kipps, presiding. There was an attendance of fifty members. The following program was presented: "Imperforate Anus" by Dr. L. J. Hansbrough; "Carcinoma of the Bladder" by Dr. G. W. Parrott; "Surgery for Pyometra of Long Standing" by Dr. E. M. Cover; "Ocular Emergencies" by Dr. W. P. McGuire; "Protruded Cervical Intervertebral Disk Simulating Heart Disease" by Dr. C. L. Gossels; and "Early Ambulation in Surgical Patients" and a moving picture on "Herniorrhaphy" by Dr. E. T. Trice, Richmond, who was invited guest. Dr. Harold Miller also gave observations on the State Medical meeting.

Officers elected for 1948 are: President, Dr. C. H. Iden, Berryville; vice-president, Dr. Harold W. Miller, Woodstock; and secretary-treasurer, Dr. F. D. Maphis, Jr., Strasburg.

Virginia Peninsula Academy of Medicine.

At the meeting on February 16th, there was an attendance of sixty-two. The guest speaker was Dr. Donald F. Proctor, Baltimore, his subject being on the use of radium in throat conditions.

Dr. Paul Hogg is president of the Academy and Dr. Chester D. Bradley secretary-treasurer. Both are of Newport News.

Richmond Academy of Medicine.

The Section on the History of Medicine was host to the Richmond Academy of Medicine at its meeting on February 10th. Dr. H. J. Warthen, Jr., president of the Section, was chairman. The following program was presented: "The Green-Tin Case" by Dr. Sidney G. Page; "Attempted Re-creation from an Old Notebook" by Dr. Thomas W. Murrell; and "James Thacher and his Influence on American Medicine" by Dr. Henry R. Viets, invited guest of Boston, Massachusetts.

The officers for next year are Dr. Arthur S. Brinkley, chairman and Dr. Emmion S. Williams, secretary-treasurer.

Roanoke Academy of Medicine.

At the meeting of the Academy on February 2nd, the following program was presented following a business session:

Extra-uterine pregnancy with unilateral twins—Dr. Chas. W. Dorsey.

Term pregnancy complicated by ovarian cyst with twisted pedicle—Dr. Algie Davis.

Placenta Acreta—Dr. Julian H. Meyers.

The use of apomorphine and hyoscine as an obstetrical amnesic and analgesic—Dr. A. M. Groseclose. All speakers are of Roanoke.

Dr. Charles M. Irvin is president of the Academy, and Dr. Ira Hurt secretary.

The Tazewell County Medical Society,

At its annual meeting on November 13th, elected the following officers for 1948: President, Dr. H. A. Porter, Boissevain; vice-president, Dr. Rufus Brittain, Tazewell; and secretary, Dr. William R. Strader (re-elected), Richlands.

Several new members have joined this society recently.

NEWS

Medical Society of Virginia.

As previously stated, dates for the annual meeting of the Medical Society of Virginia are October 18, 19 and 20, and the John Marshall Hotel is to be headquarters. Although there should be ample hotel accommodation in Richmond, members are urged to make reservations promptly at hotels of choice.

The Local Committee of Arrangements named by the Richmond Academy of Medicine is headed by Dr. Charles L. Outland as general chairman. He will be assisted by the following:

Scientific Exhibits—Dr. W. Ambrose McGee
Commercial Exhibits—Dr. Harvey B. Haag
Entertainment—Dr. Rex Blankinship
Hotels and Meeting Halls—Dr. Ben Rawles, Jr.
Finance—Dr. T. Dewey Davis
Ladies—Mrs. Luther C. Brawner

Dr. Archer New Councilor.

Dr. Vincent W. Archer, University of Virginia, has been named by Dr. Guy Fisher, President, as Councilor for the Eighth District of the Medical Society of Virginia, to succeed Dr. J. E. Knight, deceased.

Appointments on Committees.

Dr. E. M. Holmes of Richmond has been appointed as an additional member of the Venereal Disease Control Committee of the Medical Society of Virginia, and Dr. John H. Guss of Staunton has been appointed a member of the Department of Clinical and Medical Education, succeeding Dr. Julian L. Rawls, deceased.

The Cancer Problem—A Symposium on its Diagnosis, Control and Treatment.

The Department of Continuation Education and the Department of Oncology of the Medical College of Virginia, in conjunction with the medical faculty of the University of Virginia, and the co-operation of the Department of Clinical and Medical Education of the Medical Society of Virginia, announces a SYMPOSIUM ON MALIGNANT GROWTH, to be held at the Medical College of Virginia, the week of March 22 through 27.

Discussions covering the entire field of the Cancer Problem will be presented. Advances in the field of Research, Diagnosis, Control and Treatment will be given by national leaders in their respective fields.

There will be lectures, clinics, and demonstrations covering problems of cancer of each system, with emphasis on the generative tract, the gastro-intestinal tract, respiratory tract, skin and bone. The program will be of interest to general practitioners and specialists alike. The Committee on arrangements have been fortunate in securing the services of well-known experts to address the audience on many aspects of the varied problems. A detailed program of the course will be forwarded to you shortly. Please make your arrangements to attend. The local hotels have reserved rooms for the visiting physicians who desire same. If these are desired, please write the Department of Continuation Education, Box 94, Medical College of Virginia, Richmond, Virginia.

A partial list of speakers who will appear on the program includes Dr. C. P. Rhoads, Director of Memorial Hospital, New York; Dr. Jos. C. Aub, Professor of Research Medicine, Harvard University, School of Medicine; Dr. Harry S. N. Greene, Professor of Pathology, Yale University; Dr. Roscoe Spencer, Director of Professional Training, National Cancer Institute; Dr. Charles S. Cameron and Mr. Douglas Poteat of the American Cancer Society; Drs. Wiley D. Forbus and Robert W. Reeves of Duke University; Dr. Harold L. Stewart, National Cancer Institute; Dr. Peter A. Herbut of Philadelphia; Dr. Nathan B. Eddy of the National Research Council; Dr. Aubrey Hampton of Washington, D. C.; Drs. James C. Amersbach, Maurice M. Black, and Guy F. Robbins, of New York City, and members of the faculty of the University of Virginia School of Medicine and the Medical College of Virginia.

The lectures and clinics will be given in the Simon Baruch Auditorium, Egyptian Building, 13th and Marshall Streets. Fee: $25.00.

Medical College of Virginia News.

Dr. Everett I. Evans, Associate Professor of Surgery, has been named to the Advisory Board of the American National Red Cross by President Basil O'Connor. Dr. Evans with other members selected throughout the country will serve the Red Cross in an advisory capacity concerning its health and medical program.

Dr. Nathan Bloom, Associate Professor of Medicine and Chief of the Department of Electrocardiography at the College is co-author with Dr. Julius Burstein, Visiting Electrocardiographer and Chief of the Cardiac Clinic, Morrisania City Hospital, New York, of a new monograph, ILLUSTRATIVE ELECTROCARDIOGRAPHY.

A new department of anesthesiology has been opened at the Medical College of Virginia to offer training to physicians who desire to specialize in

XUM

anesthesiology. It is expected that the department will also improve the handling of anesthetics for patients in the hospital. Dr. Williams E. Pembleton has been named by President W. T. Sanger to serve as director of the new department. Dr. Pembleton is a graduate in medicine from the University of Pennsylvania and was associated with a Hartford, Connecticut, hospital at the time of his appointment.

Dr. Paul D. Camp, Associate in Medicine, read a paper at the Tri-State Medical Meeting at Charleston, South Carolina, on February 9-10 on the subject, "Bacterial Endocarditis: Its Early Diagnosis and Modern Treatment."

Fifteen doctors from Virginia, North Carolina, West Virginia enrolled in a course in heart disease at the Medical College of Virginia, February 9-14. Those from North Carolina were: Dr. S. C. Cox, Midway Park; Dr. H. A. Eldridge, Dunn; Dr. Edwin P. Ewers, Warsaw; Dr. W. B. Hooks, Tarboro; Dr. C. G. Milham, Hamlet; Dr. R. C. Sadler, Whiteville; Dr. C. F. Irons, Greenville; and from Virginia: Dr. R. Brittain, Tazewell; Dr. Frank W. Gearing, Jr., Woodstock; Dr. J. Paul Kent, Altavista; Dr. T. C. Lawford, Hilton Village; Dr. E. Bowie Shepherd, Richmond; and Dr. E. S. Williams, Richmond; and Dr. Upshur Higginbotham, Bluefield, W. Va., and Dr. Everett H. Starcher, Logan, W. Va.,

American Academy of Pediatrics

The Areal Meeting of the American Academy of Pediatrics will be held at the Statler Hotel, Buffalo, New York, April 29th to May 2nd, 1948.

Members of State Medical Societies are welcome to attend. The registration fee will be $5.00 for such non-members together with a $5.00 registration for which each registrant receives a ticket to the banquet, making a total registration fee of $10.00.

Registration may be made ahead of time by writing to Dr. C. G. Grulee, Secretary-Treasurer, American Academy of Pediatrics, 636 Church Street, Evanston, Illinois, enclosing a check for $10.00 or registration may be at the time of the meeting.

Clinical Directors.

Dr. Arthur J. Gavigan has been appointed clinical director at Southwestern State Hospital, Marion. He is a graduate of Yale Medical School and has served on the staffs of several state hospitals in Massachusetts and recently was with the Alton State Hospital in Illinois.

Dr. Stuart C. Runkle has been appointed to the position of clinical director at the Western State Hospital, Staunton, and assumed his duties on February 11th. He is a native of Pennsylvania, and a graduate of Jefferson Medical College in 1932. He comes to Virginia from the U. S. Naval Hospital at Honolulu where he served as chief of the psychiatric department with the rank of commander.

News from University of Virginia School of Medicine

Dr. H. B. Mulholland, Professor of Practice of Medicine, has been appointed a member of the Council of the American Diabetes Association.

On January 19th, Dr. James L. Poppen of the Lahey Clinic gave a lecture on "Intracranial Aneurysms" in the series of lectures on the Postgraduate Program for House Officers.

Dr. Eugene B. Ferris, Associate Professor of Medicine at the University of Cincinnati, gave a lecture in this series on January 26th. Dr. Ferris spoke on the subject of "Clinical Evaluation and Management of Hypertension".

Dr. Samuel Vest, Professor of Urology, spoke on the subject of "Urinary Tract Infections" at the Academy of Medicine, which met in Raleigh, North Carolina on January 30th.

At the Third Annual Conference on Rural Health, held in Chicago on February 7th, Dr. H. B. Mulholland spoke on the subject of "Health Councils".

The Regional Meeting of the Virginia Section of the American College of Physicians was held at the University of Virginia Hospital on February 12th. Members of the Medical School faculty and the University Hospital Staff participated in the program, which was presided over by Dr. Staige D. Blackford, President of the Virginia Section.

On February 13th, Dr. Oscar Swineford spoke on the subject of "Drug Allergy" at the meeting of the Danville and Pittsylvania Academy of Medicine in Danville, Virginia.

XUM

Dr. Joseph Lee Mann

Has returned to Hampton and re-opened his office at 176 Victoria Avenue. In 1941 he entered the Army Air Forces Medical Corps but recently has been located with a clinic group in Minot, North Dakota.

Dr. Thomas E. Painter,

Associate physician at Saint Albans Sanatorium, Radford, is taking the special course in psychiatry and neurology offered at George Washington University, Washington, D. C., February 16—March 6.

Dr. Oscar L. Ramsey, Jr.,

Recently engaged in general practice at Gretna, has moved to Holden, West Virginia, where he has accepted a position on the staff at the Holden Hospital.

Spring Graduate Course.

The Gill Memorial Eye, Ear and Throat Hospital of Roanoke will hold its twenty-first annual Spring Graduate Course in Ophthalmology, Otology, Rhinology, Laryngology, Facio-Maxillary Surgery, Bronchoscopy and Esophagoscopy April 5-10, in Roanoke. All lectures will be held at the Patrick Henry Hotel, and clinical demonstrations will be at the Hospital. The faculty will be composed of distinguished guests, whose names are given in the advertising pages of this journal.

Information as to the cost and other details may be obtained by writing the Superintendent, Box 2467, Roanoke, Virginia.

The Mental Hygiene Society of Virginia

Held its annual meeting at Baruch Auditorium of the Medical College of Virginia, Richmond, in the afternoon and evening of February 19th, under the presidency of Dr. Joseph R. Blalock of Marion. The theme for discussion was "hostility" and excellent addresses were given on this subject by four specialists in the mental hygiene Field.

Officers elected for the ensuing year are: President, Rev. Abner Robertson, Richmond; vice-president, Dr. Rex Blankinship, Richmond; secretary, Dr. R. W. Garnett, Danville; and treasurer, Miss Elizabeth Welbon, Richmond.

Jefferson Medical College.

The Annual Lecture given by the Alpha Omega Alpha Honorary Medical Society of The Jefferson Medical College of Philadelphia was held in the Assembly Hall of the College on Thursday, February 19, 1948.

The Speaker was Dr. Shields Warren, Director of the Division of Biology and Medicine of the Atomic Energy Commission, Pathologist to the New England Deaconess and Collis P. Huntingdon Hospitals, Assistant Professor of Pathology, Harvard University School of Medicine. His subject was "Medical Aspects of Atomic Energy".

New Head for U. S. Public Health Service.

It has been announced that President Truman will appoint Dr. Leonard A. Scheele as Surgeon General of the U. S. Public Health Service to succeed Dr. Thomas Parran at expiration of his term of service on April 6. Dr. Scheele is forty years of age, a native of Fort Wayne, Indiana, and has been director of the National Cancer Institute at Bethesda, Maryland, since last July.

Seminar in Psychiatry.

The Department of Mental Hygiene and Hospitals, the American Psychiatric Association, the Medical Society of Virginia, and the U. S. Public Health Service have planned a two-weeks seminar in psychiatry in Richmond from April 5 to April 16 inclusive. This seminar will bring together nationally known and local authorities in the field of psychiatry. During this two-weeks period it is expected that the various phases of mental disease and hospital treatment will be covered by such widely known physicians as Dr. Franklin G. Ebaugh, Director of the Colorado Psychopathic Hospital, Denver, Colorado; Dr. Thomas M. French, Chicago Institute of Psychoanalysis; Dr. Samuel W. Hamilton, Superintendent of Essex County Hospital, New Jersey; Dr. Gregory Zilboorg, New York City; Dr. R. Finley Gayle, Dr. David C. Wilson, Dr. J. Asa Shield, of Virginia; Dr. John Whitehorn, Johns Hopkins University; Dr. Winfred Overholser, Washington, D. C., President of the American Psychiatric Association; Dr. Frederick H. Allen, Director of the Philadelphia Child Guidance Clinic; Dr. Leo Kanner, Johns Hopkins University; Dr. Robert H. Felix, U. S. Public Health Service; Dr. C. C. Burlingame, of the Institute for Living, Hartford, Connecticut; Dr. Leland Hinsie, Professor of Psychiatry, Columbia; Dr. Abraham Myerson, Boston, Massachusetts; Dr. Nolan D. C. Lewis, New York City, and many others.

XUM

There will be no charge for attendance at this seminar and it will be open to all physicians, psychologists, and associated workers in the field of psychiatry.

Study Mineral Water as a Therapeutic Aid.

In the spring of 1944, Bernard M. Baruch set up the Baruch Committee on Physical Medicine which made major grants to Columbia University, New York University, and the Medical College of Virginia. He provided this in memory of his father, Dr. Simon Baruch who was deeply interested in the development of the mineral water treatments at the Saratoga Spa. The grant to the Medical College of Virginia was specifically for education and research in hydrotherapy, climatology and Spa therapy.

Dr. Frances A. Hellebrandt, director of the Baruch Center of Physical Medicine of the Medical College of Virginia, Dr. Ellen Neall Duvall, Research Associate and Miss Sarah Jane Houtz, research assistant of the center, have been at the Saratoga Spa for a month of study. They are taking the mineral water treatments experimentally, maintaining daily reports, and registering any changes which may occur as a result of the treatments.

Philadelphia County Annual Postgraduate Institute.

The Twelfth Annual Postgraduate Institute of the Philadelphia County Medical Society will be held at the Bellevue-Stratford Hotel, April 20-23, 1948. Due to the success of last year's program it is again planned to present the material in the form of a series of symposia on subjects of practical interest to the general practitioner and specialist.

Among the topics to be covered are Problems in Obstetrics and Gynecology, Newer Drugs and Procedures, Surgery of the Ambulatory Patient, Fractures, the Painful Breast, Neuropsychiatric Disorders, Problems of the Aged, the Acute Abdomen, Gastrointestinal Disorders, and Otolaryngological Problems.

In addition to the regular morning and afternoon programs there will also be two evening sessions at the Society Building on the subjects of Cancer and Pediatrics.

The usual large number of technical exhibits will be important features of the sessions. Registration fee for the entire meeting is Five Dollars. A copy of the preliminary program and any further information may be secured by writing to Gilson Colby Engel, M.D., Director, 301 South 21st Street, Philadelphia 3, Pa.

Dr. Roshier Miller Honored.

Friends of Dr. Roshier W. Miller, a former president of the Medical Society of Virginia, honored him with the presentation of his portrait to the Medical College of Virginia, on January 30th in Baruch Auditorium.

A member of the faculty of the college since 1894 when he became an instructor in the school of pharmacy, Dr. Miller has served in many positions at the college and engaged in a number of civic activities. He has been a member of the Alumni Association of the Medical College since graduation, serving for three years as president, three years as secretary, and alumni trustee. Last year he was elected trustee emeritus for the Association.

Dr. Miller was a member of the Richmond School Board for twenty-six years and served as chairman for eighteen years. He attended one thousand meetings of the Board missing only about twelve and presented personally twenty-six thousand diplomas to high school graduates of the city.

Since becoming a member of the Medical College of Virginia faculty in 1894, he has served as both teacher and dean of the school of pharmacy. Last year he was elected emeritus professor of materia medica and therapeutics.

Dr. J. Morrison Hutcheson presided at the presentation of the portrait; Dr. Harvey B. Haag, Dean of the school of medicine, spoke on "Dr. Miller and the College"; Mrs. Henry W. Decker on "Dr. Miller as a Citizen"; and Dr. Waverly R. Payne on "Dr. Miller and the Alumni Association". The portrait was presented by Dr. W. Lowndes Peple with President W. T. Sanger accepting it in behalf of the College.

State Department of Health.

Dr. F. J. Wampler, Health Officer of the Page-Warren-Shenandoah Health District for the past seventeen months, has retired, effective January 30, 1948.

Dr. Henry Stoll and Dr. J. R. Anderson have been appointed dental clinicians. Dr. Stoll comes

from the Guggenheim Dental Clinic, an institution for post-graduates in children's work. He will be assigned to Fairfax County. Dr. Anderson, recent graduate of the University of Tennessee, will be assigned to Smyth County.

Dr. Fred J. Wampler,

Recently of Luray, has been appointed to the position of Chief of Field Party for the Institute of Inter-American Affairs. The Institute is a corporation under the State Department whose function is to work with the Latin American republics in health and medical fields. Dr. and Mrs. Wampler may be addressed care the American Embassy, Lima, Peru.

Dr. Charles H. Baker,

Of Chilhowie, has been spending the winter in Florida with headquarters at Lakeland.

Recording Your Data in the New American Medical Directory

The American Medical Association reports that 115,000 physicians have returned their Directory Information Cards supplying data for the new AMERICAN MEDICAL DIRECTORY now being compiled. Those physicians who have received these cards and have not returned them are urged to do so at once. This information is needed for your listing in the 1949 Directory.

Please use the card that has been addressed to you, as it bears the serial number which has been assigned to your data. If a card is received by you addressed to another physician who has moved away, return the card with the doctor's new address written on the slip bearing his name and serial number if you can supply the information.

Before filling out your card, check the list of specialties on the back of the card and select only one specialty, indicating, in the space provided on the front of the card, either that your practice is limited to that specialty or that you give special attention to that branch of medicine along with general practice. Fill in the lines marked "Intern" and Resident" *only* if you are now serving an internship or residency in a hospital.

For Sale.

Office and medical equipment of doctor recently deceased. A full list may be obtained upon request. Write "Equipment", care the Monthy, 1200 East Clay Street, Richmond, Virginia. (*Adv.*)

OBITUARIES

Dr. William Lowndes Peple,

Prominent surgeon and educator of Richmond, died at his home in this city on February 7th. He graduated from the former University College of Medicine, Richmond, in 1897, following which he interned at St. Luke's Hospital, with which institution he was connected to the time of his death. He first taught at his alma mater and was later with the Medical College of Virginia, with which he had for some years been emeritus professor of clinical surgery. He served with Base Hospital N. 45 in World War I, and had been the recipient of many honors in his State and in national organizations. His wife, two children and a large family connection survive him.

Dr. Harvie DeJarnette Coghill.

Director-Psychiatrist of the Memorial Guidance Clinic in Richmond, died February 6th. He was sixty-three years of age and received his medical degree from the Medical College of Virginia in 1926. Dr. Coghill helped organize the Children's Memorial Clinic (now the Memorial Guidance Clinic) and became its director-psychiatrist in 1928 and had devoted all of his time to studying the behavior and personality problems of Richmond children. Recently he had worked as coordinator of the National Congress of Mental Hygiene and helped to prepare for the meeting this summer in London. Dr. Coghill was a member of several medical organizations and had been a member of the Medical Society of Virginia since 1926. His wife and two daughters survive him.

Dr. Edward L. W. Ferry,

Millers Tavern, died February 17th. He was seventy-three years of age and a graduate of the Medical College of Virginia in 1900. Dr. Ferry was a past president of the Mid-Tidewater Medical Society, a Mason, a member of the Medical Society of Virginia, and had been active in civic, fraternal, political, professional and church affairs in Essex County for many years. His wife and three sons survive him.

Dr. Perry Watson Miles,

Prominent Danville physician, died on February 21 at Johns Hopkins Hospital, where he had been under treatment for sometime. He was sixty-five years of age and a graduate from the

XUM

former University College of Medicine, Richmond, in 1908, later taking special work in internal medicine at Harvard. He practiced first in North Carolina, moving to Danville in 1919, where he became active in civic and professional circles. He organized the first playground project in that community, and was for sometime chairman of Danville's school board. Dr. Miles was a former president of the South Piedmont Medical Society, a vice-president of the Medical Society of Virginia in 1938 and had served on a number of its important committees. He is survived by his wife and six children.

Dr. Robert Sterling Montgomery,

Prominent physician of South Hill, died February 10th, after a long illness. He was thirty-seven years of age and a graduate of the Medical College of Virginia in 1934. Dr. Montgomery had practiced with his father, Dr. C. V. Montgomery since 1937 and until his retirement in 1946 because of ill health. He was active in civic affairs, having been president of the South Hill Chamber of Commerce, a member of the board of the proposed memorial hospital, and former scoutmaster of the South Hill Boy Scouts. He was a member of the Medical Society of Virginia. Besides his parents, he is survived by a brother.

Dr. Robert Edgar Mitchell,

Well known eye, ear, nose and throat specialist of Richmond, died on February 20, at the age of sixty-three. He had retired from practice several years ago because of ill health. A native of Johnson City, Tenn., he studied both pharmacy and medicine at the Medical College of Virginia, from which he graduated in 1913. He was a Mason and a Shriner and a member of several medical organizations, having joined the Medical Society of Virginia nearly thirty-five years ago. His wife and three children survive him.

Dr. Alfred B. Claytor,

Bedford, died January 9th of pneumonia. He was seventy-nine years of age and received his medical degree from the University of Pennsylvania in 1894. Dr. Claytor had been a member of the Medical Society of Virginia for twenty-seven years.

Dr. Joseph Henry Mitchell,

Well known physician of Buckingham County, died at his home in Dillwyn on February 11th. He was eighty-four years of age and a graduate of the Baltimore Medical College in 1895. Dr. Mitchell had practiced in Buckingham County for about forty years. His wife and four children survive him.

Dr. Leland E. Cofer,

A native of Richmond, died at his home in Palm Beach, Florida, on February 17th, at the age of seventy-eight. He graduated from the Medical College of Virginia in 1889 and his entire medical career was spent in public health work in various parts of the United States, Mexico and Hawaii.

Dr. Irving S. Barksdale,

Greenville, S. C., died February 10th. He was born in Richmond in 1898 and was the son of Dr. and Mrs. George E. Barksdale of this city.

Dr. Joseph Caplan,

A native of Norfolk, died in Baltimore on February 7th, at the age of forty-eight. He was a graduate of the University of Virginia, Department of Medicine, in 1925.

Mr. Josiah K. Lilly, Sr.

We regret to announce the death on February the 8th of Mr. Josiah K. Lilly, chairman of the Board of Directors of Eli Lilly and Company, and former president of the Company.

XUM